NYU | COURANT INSTITUTE OF MATHEMATICAL SCIENCES

NOVEMBER 2025

RESUME BOOK

INTERNSHIP CANDIDATES

MATHEMATICS IN FINANCE

Master of Science Program

DEAR COLLEAGUE,

We are pleased to share with you the resumes of the graduate students in NYU Courant's *M.S. in Mathematics in Finance* who are on the job market and looking for summer internships.

We believe our students are the most astute, most capable, and best trained group of students of any program. The resumes you find in this resume book describe their distinguished backgrounds. For the past years we have one of the highest placement records for internships and full-time positions. Our students enter into front office roles such as trading, portfolio or risk management, on the buy and the sell side. Their computing, quantitative modeling, and machine learning skills, as well as their hands-on practical experience, makes them productive from day one.

Our graduate-level curriculum is dynamic and challenging. For example, the first semester investment course does not end with CAPM and APT, but is a serious data- driven course that examines the statistical principles and practical pitfalls of covariance matrix estimation and portfolio construction. As part of our core curriculum, students learn the modern tools of computer science, machine learning and data science as they are used in the financial industry today. Our advanced electives cover cutting-edge topics in alternative data, algorithmic trading, computational statistics, derivatives pricing, financial machine learning, risk and portfolio management, and XVA. Our instructors are senior industry professionals and full-time faculty from NYU Courant, the top ranked department worldwide in applied mathematics. You can find more information about our curriculum and faculty at **math-finance.cims.nyu.edu.**

Sincerely yours,

Petter Kolm
DIRECTOR

Leif Anderson
INDUSTRY ADVISOR

New York University
Courant Institute of Mathematical Sciences
MS in Mathematics in Finance

251 Mercer Street
New York, NY 10012-1185
Phone: (212) 998-3104 | Fax: (212) 995-4195

THE CURRICULUM HAS FOUR MAIN COMPONENTS

For more information about the program curriculum and course descriptions, visit **math-finance.cims.nyu.edu/academics/**

01. FINANCIAL THEORY, STATISTICS, AND FINANCIAL DATA SCIENCE

These courses form the core of the program, covering topics ranging from equilibrium theory, Black-Scholes, Heath-Jarrow- Morton, linear regressions, covariance matrix estimation to modern machine learning techniques and how they are used in quantitative finance.

02. PRACTICAL FINANCIAL APPLICATIONS

These classes are taught by industry specialists from prominent Wall Street firms. They emphasize the practical aspects of quantitative finance, drawing on the instructor's subject matter experience and expertise.

03. MATHEMATICAL TOOLS

This component provides appropriate mathematical background in areas like stochastic calculus and partial differential equations.

04. COMPUTATIONAL SKILLS

These classes provide students with a broad range of software skills in Java and Python, and facility with computational methods such as optimization, Monte Carlo simulation, EM-type algorithms and the numerical solution of partial differential equations.

PRACTICAL TRAINING

In addition to coursework, the program emphasizes practical experience. All students do a capstone project (the Project and Presentation course), mentored by finance professionals. Most full-time students do internships during the summer between their second and third semesters.

KEVIN STEVE BELTRAN CLAVIJO

(646) 361-5410 // kevin.beltran@nyu.edu // linkedin.com/in/kevinstevebeltran

EDUCATION

Expected 12/26 **NEW YORK UNIVERSITY** New York, NY
The Courant Institute of Mathematical Sciences
M.S. in Mathematics in Finance
- ***Expected Coursework:*** Python OOP, high-frequency systems, risk-neutral valuation, option pricing, arbitrage pricing theory, risk management, portfolio optimization, financial econometrics

08/15 - 05/20 **LA SALLE UNIVERSITY** Bogotá, Colombia
B.S. in Economics
- ***Coursework:*** capital markets, time series analysis, economic growth, financial mathematics
- ***Honors/Awards:*** Full scholarship (*Ser Pilo Paga*), 3rd place - University Economics Olympiad 2018, ranked 2nd out of 42 in graduating class

EXPERIENCE

06/21 - 08/25 **DAVIVIENDA BANK**
(Leading Colombian financial institution, $47B AUM) Bogotá, Colombia

04/23-08/25 **Quantitative Research Lead - Financial Risk & AI Solutions (Python, Google Cloud Platform)**
- Developed multiprocessing cloud-based software to manage IRRBB for $1.7B portfolio
- Built real-time, cloud-based software for collection process, using hyperparameter optimization ML/DL, generating $30M in savings from $60K investment (462x return)
- Led team of 4 on projects in KYC automation, marketing with rule-based engines, and credit evaluation using OCR and LLMs, presenting results to CRO
- Gained cross-functional exposure across software, operations, risk, and strategy

07/22-04/23 **Quantitative Research - Financial Risk & AI Solutions (Python, Google Cloud Platform)**
- Designed knowledge database on GCP to handle structured and unstructured documents, serving as backend for AI agents supporting internal and external communications
- Standardized extraction and integration of public data sources as reusable data services, enabling scalable use in risk analytics

12/21-07/22 **Data Scientist - Model Validation (Dataiku)**
- Evaluated and validated machine learning models for key applications in credit scoring, fraud detection, and advanced business analytics
- Conducted applied research and implemented data science methodologies for ML explainability to support bank's evolving analytics strategy

06/21-12/21 **Data Scientist - Analyst (AppScript)**
- Designed and deployed internal web applications using Google Workspace and Python, improving decision-making processes across multiple business units

PROJECTS

08/24 - 08/25 **DAVIVIENDA BANK** Bogotá, Colombia
Economic Valuation Engine (Python, Google Cloud Platform)
- Formulated long-term integration plan combining credit risk, market risk, and IRRBB for bank's enterprise risk management framework

06/23 - 05/24 **Davinegociador 2.0 (Python, Google Cloud Platform)**
- Led development of back-end and front-end for newest collections management platform
- Identified and exposed critical risk in mortgage strategy under updated collections process framework

COMPUTATIONAL SKILLS / OTHER

Programming Languages: Python, C++, JavaScript, SQL
Languages: English (fluent), Spanish (native)
Affiliations/Certifications: C++ Programming for Financial Engineering from QUANTNET; Financial Market Analysis from IMF; Financial Management, Applied Data Science, and Machine Learning from Coursera

SARAN (BLURI) BODDULURI

(929) 409-7635 // saran.b@nyu.edu // linkedin.com/in/saranbluri // saranbluri.com

EDUCATION

Expected 12/26 **NEW YORK UNIVERSITY** New York, NY
The Courant Institute of Mathematical Sciences
M.S. in Mathematics in Finance
- ***Expected Coursework:*** financial markets, risk and portfolio management, data science and data-driven modeling, stochastic calculus

08/20 - 05/24 **SHIV NADAR UNIVERSITY** Greater Noida, India
B. Tech in Computer Science and Engineering
- ***Coursework:*** multivariable calculus, differential equations, linear algebra, data structures and algorithms, probability and statistics, AI, database systems, ML, discrete time finance
- ***Honors/Awards:*** Graduated with High Distinction, Dean's List (7 semesters)

EXPERIENCE

06/24 - 06/25 **PL CAPITAL** Mumbai, India
Quantitative Analyst (Python, SQL)
- Developed factor enhancements using XGBoost-based technical signals, macro trend filters, and size deciles, improving post-cost CAGR by 2.5% and reducing max drawdown by 20%
- Built high-frequency futures and options scripts with Python multithreading and Polars, making data processing 10 times faster compared to Pandas workflows
- Engineered automated reporting module integrating transcription services, AWS, and OpenAI API to generate quarterly reports, with 80% reduction in processing time

05/23 - 08/23 **TRUE BEACON** Bengaluru, India
Quantitative Analyst Intern (Python, SQL, GCP)
- Constructed Sparse Index tracking portfolios for Nifty 50 and Nifty Bank using Convex Optimization, achieving 126.58% return over 10 years through rigorous backtesting
- Engineered custom data pipelines integrating BQL, PostgreSQL, and PDF extractors, automating daily Debt PnL calculations and saving more than 400 minutes monthly
- Designed and backtested cross-border arbitrage strategies between Nifty Futures and NSEIX, generating 1.97% post-cost 6-month return

12/22 - 05/23 **INDIAN INSTITUTE OF MANAGEMENT BANGALORE** Bengaluru, India
Research Intern (Python)
- Automated extraction and processing of more than 275,000 tweets and 55,000 images related to S&P 500 companies, using Python for comprehensive market sentiment analysis
- Processed text, links, images, and PDFs from 13 years of BSE500 companies' CSR pages

06/22 - 07/22 **NATIONAL UNIVERSITY OF SINGAPORE** Singapore, Singapore
Summer Abroad Intern (Python)
- Developed violence detection system using CCTV footage with CNN feature extraction and LSTM temporal classification, achieving 73.33% accuracy

PUBLICATIONS

SHIV NADAR UNIVERSITY Greater Noida, India

08/23 - 04/24 **UnSeGArmaNet: Unsupervised Image Segmentation Research**
- Developed state-of-the-art unsupervised image segmentation framework; published research for Proceedings of the 35th British Machine Vision Conference 2024, Glasgow, UK

08/21 - 11/22 **Primary Market Conditions and Technical Analysis**
- Implemented technical indicators, ARIMA, and Markov models to detect regimes in IPO Market; published research for Proceedings of the 9th PAN IIM World Management Conference 2023

COMPUTATIONAL SKILLS / OTHER

Programming Languages: Python, C++, MySQL, R, SWI-Prolog, HTML, CSS, ReactJS, MS Office
Technical Skills: Pandas, Polars, Statsmodels, Sklearn, TensorFlow, PyTorch, Tableau, GCP, AWS, Git
Languages: English (fluent), Telugu (fluent), Hindi (intermediate)

RUNCHEN CHAI

(332) 733-4685 // runchenchai@nyu.edu // linkedin.com/in/runchenchai

EDUCATION

Expected 12/26 **NEW YORK UNIVERSITY** **New York, NY**
The Courant Institute of Mathematical Sciences
M.S. in Mathematics in Finance
- ***Expected Coursework:*** decision trees, linear regression, Fama-French, Black-Scholes, stochastic processes, risk and portfolio management, machine learning, dynamic asset pricing, financial securities and markets, computational statistics

09/21 - 06/25 **WUHAN UNIVERSITY** **Wuhan, China**
B.E. in Finance, B.S. in Mathematics and Applied Mathematics
- ***Coursework:*** corporate finance, econometrics, investment, linear algebra, ordinary differential equations, numeric analysis, Bayesian statistics, law of large numbers, calculus
- ***Honors:*** 2021 and 2022 Outstanding Student (top 5%), Honorary Graduate of Hongyi Institute, Second Prize in National Mathematics Competition for College Students of China

EXPERIENCE

07/24 - 10/24 **CHINA MERCHANTS SECURITIES** **Shanghai, China**
Quantitative Research Intern (Python, R)
- Conducted independent research analyzing correlations among index constituents and alpha generation in enhanced funds, identified theoretical-consistent patterns, and reported deviations
- Performed comprehensive bond data quality analysis across more than 200 fixed-income securities, evaluating anomalies in ChinaBond valuations and proposing improvement plans
- Collaborated on CAMPISI attribution analysis for simulated portfolios of embedded option bonds, contributing to performance impact assessment
- Analyzed relationship between active equity fund size/shares and A-share market indices across 5 years; independently identified weak negative correlation (t-stat=1.5)

06/23 - 08/23 **TREND CONSULTING**
(A leading Chinese management consulting firm focusing on healthcare) **Shanghai, China**
Intern in Research/Investment/Data Analysis (Python)
- Processed 5 years of Guangdong Health Yearbook data, extracting records with image-to-Excel conversion and 2D transformation, outputting customized tables
- Developed Python heatmap visualizations for provincial health metrics
- Researched medical payment reforms (DRG/DIP) and synthesized academician profiles

PROJECTS

01/23 - 03/23 **LONDON SCHOOL OF ECONOMICS AND POLITICAL SCIENCE** **London, UK (Remote)**
Research on Option Pricing and Quantitative Change Based on Monte Carlo (Python)
- Led 3-member team to master advanced variation-reduction methods, and proposed Taylor expansion approximation method to indefinite integral
- Conducted independent research on lookback option pricing, covering theoretical derivations, PDE-based methods, and Monte Carlo simulations to analyze and compare pricing approaches

11/22 - 12/22 **WUHAN UNIVERSITY** **Wuhan, China**
Cryptocurrency Momentum Strategy Project (Python)
- Developed rank momentum factor strategy for 4 types of cryptocurrency, backtesting 2021 market data via vectorized NumPy operations
- Validated strategy feasibility through multi-dimensional performance diagnostics

COMPUTATIONAL SKILLS / OTHER

Programming Languages: Python, MATLAB, SQL, Stata, R
Languages: English (fluent); Mandarin (native)
Affiliation/Certification: Financial Risk Manager (FRM) Part I Passed

SICHUANG (GERALD) CHAI

(518) 660-0006 // gerald.chai@nyu.edu // linkedin.com/in/gc25

EDUCATION

Expected 12/26 **NEW YORK UNIVERSITY** New York, NY
M.S. in Mathematics in Finance
- ***Coursework:*** object-oriented programming, stochastic, time-series, machine learning

09/22 - 06/25 **UNIVERSITY OF WARWICK** Coventry, UK
B.Sc (Hons) in Mathematics
- ***Coursework:*** real analysis, numerical methods, machine learning, convex optimization, financial mathematics, stochastic calculus, probability, statistics, calculus, linear algebra

EXPERIENCE

07/25 - Present **INNOVATION AI** San Jose, CA
Quantitative Research Intern (Python)
- Built Python-based data pipeline to collect, clean, normalize, and store 15K macroeconomic and sector ETF time series in SQLite, enabling efficient access for strategy development
- Engineered ML models (random forest, XGBoost) to predict relative sector returns using technical indicators (e.g., RSI, MACD), optimizing hyperparameters via cross-validation
- Designed sector rotation strategy combining model-predicted rankings and Sharpe ratio filtering; integrated mean-variance optimization for risk-controlled allocation
- Constructed full backtest engine with turnover tracking, drawdown statistics, and regime-aware signal performance evaluation, demonstrating outperformance over passive benchmarks

07/23 - 09/23 **DAHUA XIN'AN ASSET** Shenzhen, China
Summer Analyst
- Enhanced equity research by integrating sector-level financial KPIs, macroeconomic indicators, and sentiment data into Excel- and Python-based DCF valuation models for consumer sector
- Conducted cross-market macro analysis of Japan vs. China, using time series of GDP, CPI, and sectoral returns; visualized trends via Tableau and Python (Matplotlib/Seaborn)
- Delivered actionable investment proposals supported by factor-based peer comparisons and scenario testing, aligning top-down research insights with portfolio strategy discussions

PROJECTS

07/24 - 09/24 **Equity Trading Strategy and Backtest using LLM (Python)** Coventry, UK
- Built web-scraping pipeline to collect earnings calls and macro news, fine-tuned FinBERT model on labeled financial texts to extract firm- and sector-level sentiment factors
- Constructed daily sentiment scores as inputs to mean-reversion and momentum strategies, achieving 0.24 Sharpe ratio uplift during backtests with dynamic volatility-adjusted sizing
- Assessed regime sensitivity and robustness across sectors; validated signal orthogonality via cross-sectional regressions, and performed stress testing to ensure factor robustness

01/24 - 05/24 **Option Pricing using Stochastic and Monte Carlo Simulation (Python)** Coventry, UK
- Authored research essay on stochastic models in financial mathematics, deriving Black-Scholes PDE via Ito's Lemma and risk-neutral pricing framework
- Modeled BTC options using geometric Brownian motion and implemented Monte Carlo simulations to compute Greeks (delta, gamma, vega)
- Analyzed gamma scalping for dynamic hedging, evaluating trade P&L across skewed volatility surfaces and quantifying rebalancing frequency and execution risk under real-time market

COMPUTATIONAL SKILLS / OTHER

Languages: English (fluent), Mandarin (Native)
Programming Languages: Python, MySQL, VBA, Advanced Excel Functions
Modeling: Regression, Time Series, Monte Carlo Simulation, Machine Learning, Optimization
Finance: Option Pricing, Financial Risk Management, Backtesting

ZUO CHEN

(217) 550-1538 // zuochen@nyu.edu // linkedin.com/in/zuo-chen/

EDUCATION

Expected 12/26 **NEW YORK UNIVERSITY** New York, NY
The Courant Institute of Mathematical Sciences
M.S. in Mathematics in Finance
- ***Expected Coursework:*** risk and portfolio management, stochastic calculus, dynamic asset pricing, machine learning and computational statistics

08/21 - 05/25 **UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN** Champaign, IL
B.S. in Computer Science & Mathematics
- ***Coursework:*** probability and statistics, linear algebra, algorithms, differential equations, machine learning, real analysis, numerical methods, graph theory, data structures, system programming
- ***Honors/Awards:*** Highest Distinction MATH/CS, Dean's list

EXPERIENCE

06/25 - 08/25 **LATIOS**
(AI-powered efficiency tools startup) Beijing, China
Software Engineer Intern (Python, TypeScript)
- Designed and implemented multi-channel payment system, integrating both Stripe and WeChat Pay APIs to support subscriptions across different user segments
- Engineered robust server-side logic and webhook handlers to process payments and manage user subscriptions, securely handling more than 500 transactions in first month of launch
- Developed fully automated and scalable content generation pipeline using Python and Next.js to transform curated podcast lists into structured, SEO-driven blog pages
- Deployed the system to generate more than 1,000 unique pages for popular podcast episodes, cutting manual workload by 90% and boosting content throughput 5x
- Contributed to 10x increase in indexed pages and 80% uplift in organic traffic by publishing high-volume, SEO-optimized content at scale

06/24 - 08/24 **CAPGO.AI**
(Programmatic SEO startup) Beijing, China
Generative AI Intern (Python, JavaScript)
- Developed Google Sheets chatbot that converts natural-language requests into fully formatted spreadsheets, auto-building tables and financial models; slashes manual prep time by 90%
- Built Next.js chat interface that auto-generates and deploys fully functional, general-purpose websites via AI-written code and images within 3 min, cutting dev turnaround 85%
- Designed and refined comprehensive prompt frameworks that produce executable, visually polished webpages / spreadsheets, reducing post-edit time by 70% and keeping failures under 1%
- Integrated spreadsheet chatbot and web generator into client-facing SaaS—launch hit #2 Product of the Day on Product Hunt
- Optimized generative-AI pipelines for programmatic SEO and market research; scaled content production 4x and boosted research throughput 3x

PROJECT

02/25 - 04/25 **UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN** Champaign, IL
Stocks Similarity Analysis for Statistical Arbitrage and Portfolio Construction (Python)
- Developed two-stage pipeline to identify statistically meaningful relationships between stocks by combining large language model (LLM) reasoning with time series analysis
- Used LLMs to pre-filter fundamentally similar stock pairs (e.g., sector, model), then applied time series techniques to identify potentially cointegrated pairs with stable mean-reverting behavior
- Designed framework to support downstream applications such as statistical arbitrage (pair trading), basket construction, and diversified portfolio optimization

COMPUTATIONAL SKILLS / OTHER

Programming Languages: C++, C, Python, Java, TypeScript, JavaScript
Languages: English (fluent), Mandarin (native)

QIYUAN (ELIVIA) CONG

(646) 750-5576 // elivia.cong@nyu.edu // linkedin.com/in/eliviacong

EDUCATION

Expected 12/26 **NEW YORK UNIVERSITY** New York, NY
The Courant Institute of Mathematical Sciences
M.S. in Mathematics in Finance
- ***Coursework:*** singular value decomposition, boosting, bagging, numerical optimization, Brownian motion, Ito integral, Girsanov's theorem, stochastic calculus techniques

06/24 **NEW YORK UNIVERSITY** New York, NY
B.A. in Mathematics
- ***Coursework:*** ordinary differential equations, partial differential equations, Runge-Kutta methods, Gaussian quadrature, Black-Scholes-Merton model, risk-neutral dynamics
- ***Honors/Awards:*** Dean's list (2020-2023)

EXPERIENCE

03/24 - 07/25 **WUYIGE CERTIFIED PUBLIC ACCOUNTANTS LLP** Shanghai, China
Assistant Auditor (Dinstar)
- Created audit reports independently for top Chinese asset management firm's products
- Conducted annual audit assessments and compiled reports for parent company, subsidiaries, and their consolidated data

07/23 - 09/23 **NEWDO VENTURE** Shanghai, China (Remote)
Investment Assistant Intern
- Created comprehensive summary of AI industry, mapping out company distribution, identifying leading enterprises, and evaluating core technological advantages
- Designed investment assessment analysis for AI-powered digital investing platform KOIN and delivered presentation to clients

08/22 - 09/22 **WISDO MONT CAPITAL** Shanghai, China
Industry Analyst Intern (Python)
- Initiated research analysis summary of DNA data storage industry based on business model, competitive landscape, and development trends over past 10 years and next 10 years
- Produced in-depth evaluation of top Chinese biotech company's core technology and financial distribution, and presented investment opportunities to managers with modeling data

PROJECTS

01/23 - 03/23 **NORTH CAROLINA STATE UNIVERSITY** North Carolina (Remote)
Using CAPM for Pricing Risky Securities (Python)
- Examined theoretical applications of Capital Asset Pricing Model when assessing risky pricing securities
- Assessed strategies for constructing portfolios that optimally balance risk and return according to capital market line

09/22 - 12/22 **NEW YORK UNIVERSITY** New York, NY
Numerical Analysis (Python, MATLAB)
- Implemented different numerical analysis models using Python, evaluating multiple approaches to solving ODEs and comparing their effectiveness
- Analyzed advantages and limitations of each method in approximating results, and used MATLAB to visually interpret and compare results

COMPUTATIONAL SKILLS / OTHER

Programming Languages: Python, Java, MATLAB, LaTeX
Languages: English (fluent); Mandarin (native)

JIAYI DING

(347) 712-0245 // jiayiding@nyu.edu // linkedin.com/in/jiayiding2003

EDUCATION

Expected 12/26 **NEW YORK UNIVERSITY** New York, NY
The Courant Institute of Mathematical Sciences
M.S. in Mathematics in Finance
- ***Expected Coursework:*** risk and portfolio management, dynamic asset pricing

09/21 - 07/25 **PEKING UNIVERSITY** Beijing, China
B.S. in Mathematics
- ***Coursework:*** linear algebra and calculus, probability and statistics, financial mathematics, stochastic process, data structure and algorithms (Python)
- ***Honors/Awards:*** Yizheng Scholarship (2022)
- ***Thesis:*** "Financial News-Driven Stock Return Prediction Utilizing Sentence Embedding Generated by Large Language Models"

EXPERIENCE

06/24 - 11/24 **LASSO QUANT ASSET MANAGEMENT CO., LTD.**
(Private fund with approximately $1B AUM) Beijing, China
Quantitative Research Intern (Python)
- Mined high-frequency factors in Chinese A-share market by analyzing tick-level order book data and applying statistical tests to identify predictive signals, contributing to the firm's factor library
- Generated order-book factors, achieving correlation greater than 0.13 with 30s forward returns
- Achieved correlation greater than 0.05 with 300s forward returns by generating cross-sectional factors

PROJECTS

06/25 - 07/25 **KAGGLE COMPETITION** Beijing, China
Crypto Market Prediction (Python)
- Developed model capable of predicting short-term crypto future price movements using anonymous production data
- Achieved 0.12 correlation between predicted values and labels

01/24 - 03/25 **UNIVERSITY OF CHICAGO BOOTH SCHOOL OF BUSINESS** Beijing, China
Research on Financial News (Python)
- Used large language models (e.g., Llama) to generate sentence embeddings from news articles, enabling numerical representation of financial text
- Leveraged sentence embeddings derived from individual stock news to predict stock returns
- Achieved 0.22 correlation between prediction and returns

07/23 - 01/24 **TSINGHUA UNIVERSITY** Beijing, China
Mining Factors Using the OpenFE Framework (Python)
- Reviewed and implemented prior alpha mining methods, and collaborated in generating new alphas using OpenFE framework
- Generated daily-frequency factors that achieved correlation greater than 0.04 with next day's return
- Constructed stock portfolio and evaluated effectiveness of alphas that were generated

COMPUTATIONAL SKILLS / OTHER

Programming Languages: Python, MATLAB
Languages: English (fluent); Mandarin (native)
Activities: Led Calculus and Linear Algebra Q&A seminars at Peking University
Honors: Silver Medal, 36th Chinese Mathematics Olympiad (2020)

ANA LAURA GARCÍA RIVERA

(917) 921-3718 // ana.laura.g@nyu.edu // linkedin.com/in/anagarciariv

EDUCATION

Expected 12/26 **NEW YORK UNIVERSITY** New York, NY
The Courant Institute of Mathematical Sciences
M.S. in Mathematics in Finance
- ***Expected Coursework:*** stochastic calculus for finance, risk and portfolio management, financial securities and markets, computing in finance

08/16 - 12/21 **INSTITUTO TECNOLÓGICO AUTÓNOMO DE MÉXICO (ITAM)** Mexico City, Mexico
B.S. in Applied Mathematics
- ***Coursework:*** multivariable calculus, linear algebra, probability and statistics, data structures
- ***Thesis:*** "Clustering Financial Time Series: An Application to FX Markets"
- ***Honors:*** Awarded "Special Distinction" for thesis during formal dissertation exam

EXPERIENCE

02/23 - 07/25 **BANCO BILBAO VIZCAYA ARGENTARIA, BBVA**
(#1 Mexican financial services firm) Mexico City, Mexico
Data Scientist Associate (Python, Pyspark)
- Engineered and deployed 3 production-grade ML systems that optimized credit risk, client retention, and investment strategies, directly shaping high-stakes business decisions
- Designed financial health scoring framework adopted firm-wide for client segmentation, and later codified into BBVA's internal methodology publications
- Co-developed churn prediction engine that flagged at-risk clients up to 6 months early, enabling precision campaigns that reduced attrition by 1.3%
- Designed model to identify investment fund eligible clients, powering campaign that attracted 2K new clients
- Synthesized complex model outputs into actionable insights and visual dashboards that guided executive decision-making

12/20 - 01/23 **AFORE PROFUTURO**
(Mexican pension fund; 8M clients; $63B AUM) Mexico City, Mexico
FX, Fixed Income and Credit Analyst (R, SQL)
- Increased annualized alpha by 24 bps using topic modeling to extract signals from research reports
- Automated fixed income and FX reporting pipelines, cutting delivery times from hours to minutes and enhancing real-time decision-making
- Built interactive dashboards that senior portfolio managers use daily to guide investment decisions
- Leveraged Bloomberg and Eikon Reuters data to engineer features and conduct hierarchical clustering in R, enhancing FX market analysis and business-as-usual deliverables

01/20 - 12/20 **FINANCIAL GROUP BANORTE**
(Second largest financial group in Mexico; 12M clients) Mexico City, Mexico
Credit Risk Intern (R)
- Explored alternative LGD estimation techniques and analyzed portfolio risk using statistical models
- Migrated 5K lines of SAS code to R, improving code maintainability and reducing processing time for risk simulations

PROJECT

04/22 - 10/22 **AFORE PROFUTURO (R)** Mexico City, Mexico
- Conducted original research on FX return time series, implementing hierarchical clustering with advanced dissimilarity measures such as generalized correlation to study market dynamics.

COMPUTATIONAL SKILLS / OTHER

Programming Languages: R, Python, Pyspark, SQL, LaTex, MATLAB
Languages: English (fluent), Spanish (native)

LINDA GENTILI

(332) 220-6780 // linda.gentili@nyu.edu // linkedin.com/in/lindagentili

EDUCATION

Expected 12/26 **NEW YORK UNIVERSITY** New York, NY
The Courant Institute of Mathematical Sciences
M.S. in Mathematics in Finance
- ***Expected Coursework:*** object-oriented programming, cointegration and statistical arbitrage, Bayesian inference, hidden Markov models, Markov chain, Monte Carlo, and stochastic calculus

09/19 - 03/22 **LUISS GUIDO CARLI UNIVERSITY** Rome, Italy
M.S. in Finance
- ***Coursework:*** linear algebra, ordinary differential equations, econometrics, probability theory
- ***Honors/Awards:*** Laude (highest academic distinction in Italy), Cultivate a Talent Scholarship (full-ride, merit-based scholarship awarded by Ferrari S.p.A. to 1 student in Italy), Research Abroad Scholarship (merit-based scholarship for master's thesis research, awarded by LUISS)
- ***International Experience:*** EDHEC Business School, Nice - Exchange in Finance, 08/20 - 01/21

09/16 - 07/19 **B.S. in Economics and Management**
- ***Honors/Awards:*** Laude (highest academic distinction in Italy)

EXPERIENCE

BANCA PROFILO Milan, Italy

05/23 - 09/25 **Portfolio Manager** (Collective Funds and AI Strategy Division) **(Python)**
- Managed $30MM AUM credit arbitrage and relative value fund for professional investors
- Executed trades across fixed-income and credit markets, including strategies on inflation breakevens, swap spreads, negative bond-CDS basis, and credit index skew
- Built Python tools for live monitoring of inflation-linked relative value (real yields, breakevens, iota); forecasted Bund–swap spreads; estimated asset-class VaR via FHS and DCC correlations

07/22 - 05/23 **Assistant Portfolio Manager** (Collective Funds and AI Strategy Division) **(Python)**
- Supported daily operations of 2 alternative investment funds (credit arbitrage and relative value, long-short equity) with verified Bloomberg track records and total AUM of $60MM
- Managed repo financing, securities lending, and rolling of bonds, equity, and FX futures
- Performed portfolio reconciliations, trade booking checks, and risk/performance monitoring

09/20 - 02/22 **ROTMAN INTERNATIONAL TRADING COMPETITION** Toronto, Canada
Team Leader (2022), Team Member (2021) (Python)
- Led 4-person LUISS University team in developing trading strategies for simulated markets
- Ranked 4th out of 45 universities worldwide, outperforming teams like Harvard and Fordham
- Focused on algorithmic trading case, using Python API integration (via requests)

PROJECTS

03/24; 11/23 **BOCCONI UNIVERSITY and LUISS GUIDO CARLI UNIVERSITY** Milan and Rome, Italy
Guest Lecturer: Trading Strategies in Forex and Credit Markets
- Taught uncovered and covered interest rate parity and their applications on trading desks
- Explained risk sensitivities and pricing inefficiencies in fixed-income and credit markets

03/22 **LUISS GUIDO CARLI UNIVERSITY** Rome, Italy
Honors Thesis: DL for Asset Managers: Drivers that Move Ferrari on Wall Street (Python)
- Built Python-based models to forecast Ferrari S.p.A. stock returns using daily market data
- Implemented and benchmarked ARIMA, LSTM, Transformer, and TFT forecasting models
- Published paper ("Deep Learning for Asset Managers: Drivers that Move Ferrari on Wall Street")

COMPUTATIONAL SKILLS / OTHER

Programming Languages: Python, MATLAB, R, VBA
Languages: English (fluent), Italian (native)
Affiliation/Certification: Invited as professional counterparty client to Goldman Sachs seminars in London on Foreign Exchange Derivatives (2023) and Interest Rate Derivatives (2023), taught by senior traders and academics
Interests: Rhythmic Gymnastics (10 years, ranked 3rd in Italian National Twirling Solo)

SHAN GUAN

(201) 204-2517 // shan.guan@nyu.edu // linkedin.com/in/shanguan01

EDUCATION

Expected 12/26 **NEW YORK UNIVERSITY** New York, NY
The Courant Institute of Mathematical Sciences
M.S. in Mathematics in Finance
- ***Coursework:*** computing in finance (Python), stochastic processes, machine learning, derivatives pricing, portfolio optimization, risk management

09/20 - 06/24 **CENTRAL UNIVERSITY OF FINANCE AND ECONOMICS** Beijing, China
B.S. in Mathematics and Applied Mathematics
- ***Coursework:*** stochastic processes, data mining (Python), ODE, PDE, time series analysis, financial mathematics, microeconomics, macroeconomics, econometrics, C++
- ***Honors/Awards:*** Academic Excellence Scholarship for 2 years (top 5% GPA), Comprehensive Development Scholarship

EXPERIENCE

FOUNDER SECURITIES Beijing, China

08/24 - 11/24 **Financial Engineering Research Group (Sell-side)**
Quantitative Research Intern (Python)
- Developed and backtested single-factor quantitative strategies for stock and fund selection using Python; built portfolios based on market cap, industry classification, and rebalancing frequencies
- Simulated CSI A500 Index's pre-launch performance (2017-2024) based on its compilation methodology, comparing its risk-return profile with that of CSI 300 Index
- Summarized macro market updates for client distribution; drafted review of public offering funds to create weekly newsletter posts

07/23 - 10/23 **Asset Management Division (Buy-side)**
Quantitative Research Intern (Python)
- Researched and implemented equity factors in institutional-survey and earnings-surprise domains, building end-to-end Python pipelines from raw data ingestion to factor computation
- Constructed backtesting framework to evaluate factor efficacy, achieving 31.17% annualized excess return with 16.47% max drawdown in multi-factor portfolios
- Enhanced prediction accuracy by implementing XGBoost for factor weighting

PROJECTS

CENTRAL UNIVERSITY OF FINANCE AND ECONOMICS Beijing, China

09/23 - 01/24 **Quantitative Analysis of Hit TV Series Determinants: LDA & Ordinal Regression (Python, R)**
- Built Python web scraper to collect and preprocess more than 4,000 reviews (ratings plus text) from a leading Chinese media platform
- Developed LDA model (coherence more than 0.5) identifying 4 key themes, with ordinal regression (R) quantifying theme-rating relationships (p less than 0.01)

03/23 - 04/23 **Empirical Analysis of Markowitz Portfolio Theory (Python)**
- Designed and backtested Markowitz mean-variance portfolios on CSI 300 stocks with rolling 30-day estimates and year-long daily rebalancing; evaluated performance using Sharpe ratios
- Compared results against equal-weighted and minimum-variance portfolios, and extended framework to incorporate risk-free assets and investor risk aversion

05/22 - 06/22 **Estimation of Return and Risk of Snowball Option (MATLAB)**
- Constructed Monte Carlo simulation model in MATLAB for Snowball product analysis, generating 100,000 paths of reference index under Geometric Brownian Motion assumptions
- Conducted comprehensive risk-return analysis, including probabilistic payoff distributions and downside risk exposure metrics

COMPUTATIONAL SKILLS / OTHER

Programming Languages: Python, R, MATLAB, SQL, C++, EViews
Languages: English (fluent), Mandarin (native)

GUANGYU (DANIEL) HOU

(510) 570-5342 // guangyu.h@nyu.edu // linkedin.com/in/GuangyuHou

EDUCATION

Expected 12/26 **NEW YORK UNIVERSITY** New York, NY
The Courant Institute of Mathematical Sciences
M.S. in Mathematics in Finance
- ***Expected Coursework:*** object-oriented programming (Java), penalized regression, decision trees, linear regression, Black-Scholes, stochastic processes, Hull-White model

09/21 – 06/25 **NANKAI UNIVERSITY** Tianjin, China
B.S. in Mathematics and Applied Mathematics
- ***Coursework:*** real analysis, PDE, Python, Probability, Stochastic process, Financial option
- ***Honors/Awards:*** Social Welfare Scholarship, Nankai University (top 2%), National Undergraduate Innovation and Entrepreneurship Project Award (top 10%)
- ***Thesis:*** "Optimal Investment under Common Noise, Idiosyncratic Noise, and Contagious Jump Risk" (Applications of Mean-Field Games in Optimal Investment and Hedging)

EXPERIENCE

06/25 - Present **ZHONGTAI SECURITIES** Shanghai, China (Remote)
Fintech Intern (Python)
- Collaborated on building foundational models on macroeconomic and capital market data
- Developed quantitative strategies for ETF in A-shares markets with 14% APY

09/24 - 11/24 **CHINA EVERBRIGHT BANK** Beijing, China
Data Asset Management Intern (Python)
- Analyzed and derived theoretical implications of algorithmic evolution, assessing their potential for large language model (LLM) integrations
- Experimented with combining Actor-Critic algorithm with PPO algorithm to enhance performance of open-source large language models within banking industry

07/24 - 09/24 **CHINA FUND MANAGEMENT CO., LTD** Beijing, China
Data Analyst and Quant Developer Intern (Python)
- Developed Python scripts and optimized PySpark workflows to filter out anomalies and missing data in stock futures from Wind data source; improved efficiency by 50%
- Integrated Tonghuashun API to replicate Wind API functionalities, enabling strategy execution, order placement, and cross-validation of data for enhanced system reliability

PROJECTS

04/24 - 10/24 **JOHNS HOPKINS UNIVERSITY** Baltimore, Maryland (Remote)
Feasibility of Transfer Learning and MFG Model Adaptability
- Explored optimal transport to address domain adaptation challenges that form foundation of transfer learning
- Studied mean field equilibrium to efficiently approximate n-player Nash equilibria, with particular emphasis on their benefits and underlying procedures
- Investigated applications of mean field games across various models, analyzing how to design specific types of games and their potential real-world implementations

01/23 - 03/25 **NANKAI UNIVERSITY** Tianjin, China
New Media Marketing Strategy for Time-Honored Chinese Brands (Python)
- Conducted consumer sentiment analysis to explore methods for understanding emotions behind consumer reviews, providing strategic direction for new media marketing
- Used Python for data collection and analysis, focusing on key performance indicators to evaluate current state of new media marketing for time-honored Chinese brands

COMPUTATIONAL SKILLS / OTHER

Programming Languages: Python, C++
Languages: English (fluent), Mandarin (Native)
Activities: Exchange Student, UC Berkeley, advanced coursework in probability and stochastic processes; Vice Minister of Sports Department in Student Union of Nankai University

CHENYUE LANG

(307) 409-0888 // chenyue.lang@nyu.edu // linkedin.com/in/chenyue-lang

EDUCATION

Expected 05/26 **NEW YORK UNIVERSITY** New York, NY
The Courant Institute of Mathematical Sciences
M.S. in Mathematics in Finance
- ***Coursework:*** financial data science, machine learning, fixed income, algorithmic trading & quant strategy, interest rate and FX model, market microstructure, risk & portfolio management

09/21 - 05/25 **NEW YORK UNIVERSITY** New York, NY
B.A. in Economics and Mathematics
- ***Coursework:*** itô calculus, computational finance, securities & markets, FX & global macro, monetary economics, asset pricing, numerical methods, probability & statistics, data structures
- ***Honors/Awards:*** Magna cum laude, Dean's Honors List, Phi Beta Kappa Honor Society, Presidential Honors Scholar, CAS Scholarship

EXPERIENCE

06/24 - 08/24 **BRIDGE TRUST CO., LTD.** Beijing, China
Quantitative Investment Intern, Industrial Finance Department (Python)
- Built $8.4M cross-border TRS delivering compliant overseas exposure for regulated PRC investors; coordinated on/offshore banks, SAC/ISDA, and leverage/margin risk
- Valued 9 firms via DCF (FCFE/UFCF) using multi-stage models, WACC tuning, and sensitivities; created reconciler, improving cross-method accuracy/consistency by 15%
- Structured $1.62B trusts/quasi-REITs for energy SOE; executed DES/off-BS financing, optimized waterfalls, cutting debt 3-5% and lifting efficiency 13%, ensuring compliance
- Analyzed profitability of project firms with equity-pledged trust collateral; applied DuPont (ROE/ROA/turnover) and cost-benefit reviews to assess asset quality, risk, and optimizations

07/23 - 09/23 **HARVEST FUND MANAGEMENT** Beijing, China
Financial Analyst Intern, Global Business Department (Python)
- Co-led cross-border deal execution bridging Chinese-English teams; ran due diligence on global institutions (including sovereign wealth funds) to inform investment theses and portfolio strategy
- Managed $4.90B portfolio; issued weekly Wind/market reads (MSCI/CSI/SSE; SOFR/OMO/UST) and mapped top holdings of more than 1,000 funds to optimize allocation
- Authored equity memos from expert and financial analysis (fundamentals, moat, valuation, ownership); assessed credit risk of defaulting real-estate issuers

PROJECTS

09/21 - 05/25 **NYU COURANT - MATHEMATICAL MODELING WORKSHOP** New York, NY
Quantitative Finance Research (Python, MATLAB)
- Implemented BSM analytics and FDM solvers (explicit/implicit/CN) with adaptive grids; computed full Greeks and executed delta-hedging to control option risk
- Ran Monte Carlo for path-dependent options (Euler/Milstein) with antithetic and control variates; found Milstein with stratified sampling fastest; optimized hedges under transaction-cost models
- Modeled multi-asset options with stochastic vol and jumps; used copulas for dependence/ selection and built enhanced index portfolios, generating alpha

09/22 - 05/23 **NYU CAS PRESIDENTIAL HONORS SCHOLAR SEMINAR** New York, NY
Research Assistant - Artificial Intelligence Specialization (Java)
- Built LSTM and sentiment pipelines on prices, news, and research to forecast returns and regimes; deployed signals to optimize quantitative strategies
- Built client segmentation with k-means and random forest; personalized portfolios by risk and validated via Rubin causal framework, yielding 14% higher participation, 35% higher amounts

COMPUTATIONAL SKILLS / OTHER

Programming Languages: Java, C, C++, C#, Python, R, MATLAB, SQL
Languages: Mandarin (native); English (fluent)

SIJIA (SCARLETT) LI

(646) 208-3030 // sijiali@nyu.edu // linkedin.com/in/sijiascarlettli

EDUCATION

Expected 12/26 **NEW YORK UNIVERSITY** New York, NY
The Courant Institute of Mathematical Sciences
M.S. in Mathematics in Finance
- ***Expected Coursework:*** computing in finance, financial securities and markets, risk & portfolio management, stochastic calculus and dynamic asset pricing

09/21 - 06/25 **CENTRAL UNIVERSITY OF FINANCE AND ECONOMICS** Beijing, China
B.S. in Financial Engineering
- ***Coursework:*** stochastic process, ordinary differential equations, probability and statistics, algebra, calculus, operations research, econometrics, C++ programming
- ***Honor:*** First-Class Scholarship (5%), 2nd Prize in Beijing Undergraduate Math Competition

EXPERIENCE

07/25 - 04/25 **SHANGHAI REDWALL TAIHE FUND MANAGEMENT CO., LTD.** Shanghai, China
Strategy Research Intern (Python, C++)
- Processed Level-2 order book and trade data to develop minute-level stock alphas, including order imbalance and retail behavior factors
- Enhanced genetic programming framework to generate alpha factors with information coefficients (ICs) exceeding 3; integrated and adjusted highly correlated factors into strategies
- Boosted computational efficiency by restructuring code and applying performance-optimized tools such as Polars and Numba

10/24 - 03/25 **CHINA INTERNATIONAL CAPITAL CORPORATION (CICC)**
(Top 4 Chinese Investment Bank) Beijing, China
Quantitative Research Intern (Python, SQL)
- Developed minute-level alphas for stocks using Python and SQL; backtested strategy using 10-year historical data, achieving 0.02 increase in model's IC
- Analyzed fund data to develop FOF products; tracked equity and CTA market indicators, and performed product risk and return attribution based on quantitative multi-factor models
- Enhanced program efficiency by using C functions and multi-processing techniques

06/24 - 09/24 **SOUTHWEST SECURITIES** Beijing, China
Quantitative Research Intern (Python)
- Designed weekly adjusted stock and convertible bond alpha strategies using machine learning algorithms, yielding annual return of over 30%
- Implemented strategies to capture yields from index volatilities in equity market
- Monitored portfolio positions and fund performance metrics; drafted analytical reports

PROJECTS

07/24 - 09/24 **BEIJING INSTITUTE OF BIG DATA, PEKING UNIVERSITY** Beijing, China
Financial Large Language Model Development for Bank of China (BOC)
- Constructed multi-agent conversation patterns to predict macroeconomy and asset prices
- Developed Q&A systems using retrieval-augmented generation (RAG) techniques, constructed an evaluation model to measure answer quality in aspects including hallucination and relevance

07/23 - 05/24 **CENTRAL UNIVERSITY OF FINANCE AND ECONOMICS** Beijing, China
Research on Machine Learning-based High-Frequency Quantitative Trading Strategies
- Built comprehensive trading factor library including liquidity, risk, and momentum; applied macroeconomic indicators and cross-asset trading data to construct alternative factors
- Applied machine learning algorithms such as LightGBM and Catboost to develop strategies

COMPUTATIONAL SKILLS / OTHER

Programming Languages: C++, Python, R, SQL, MATLAB
Languages: English (Fluent), Mandarin (Native), Cantonese (Native)

ANTONG (CHARLOTTE) LIU

(201) 736-3436 // charlotte.liu@nyu.edu // linkedin.com/in/antong-charlotte-liu

EDUCATION

Expected 12/26 **NEW YORK UNIVERSITY** New York, NY
The Courant Institute of Mathematical Sciences
M.S. in Mathematics in Finance
- ***Expected Coursework:*** object-oriented programming (Java), penalized regression, decision trees, linear regression, Fama-French, Black-Scholes, stochastic processes, Hull-White model

09/21 - 06/25 **TSINGHUA UNIVERSITY** Beijing, China
B.S. in Mechanics and B.Eng. in Civil Engineering System
- ***Coursework:*** advanced linear algebra, ordinary differential equations, mathematical analysis, probability and stochastic process, time series, corporate finance, investment, econometrics
- ***Thesis:*** "Higher-Order Interactions in Synthetic Technology" (with MIT professor)
- ***Honors:*** Academic Excellence and Social Work Scholarships, summa cum laude (top 5%)

EXPERIENCE

03/25 - 08/25 **GUOTAI HAITONG SECURITIES** Beijing, China
Investment Banking Intern
- Prepared regulatory filings and coordinated responses to Securities Regulatory Commission
- Conducted due diligence and drafted business, legal, and financial valuation papers for M&As
- Supported communication and coordination with clients and financial/legal advisors throughout transaction processes and contributed to pitchbooks, prospectuses, and internal reports

07/24 - 12/24 **J.P. MORGAN** Beijing, China
Finance & Business Management Intern
- Updated financial reports based on global and Chinese business data such as payments, trade finance, market transactions, and tracked key indicators such as CIR, CAR, ROE
- Conducted competitor analysis on asset allocation, profitability, and risk management; identified regional cost optimization opportunities; and orchestrated 2025 strategic roadmap

03/24 - 05/24 **MAXENTROPY QUANT** Beijing, China
Quantitative Trader Intern (Python)
- Analyzed logic of WorldQuant101 factors to design and implement trend, momentum, and reversal correlation factors; evaluated backtesting results; and deployed daily trading
- Reproduced cutting-edge high-frequency quantitative futures trading strategy; optimized and iterated existing strategy algorithm

09/23 - 01/24 **CITIC SECURITIES** Beijing, China
Research Intern
- Evaluated performance of new energy vehicle companies using financial and industry analysis
- Developed databases and authored independent, in-depth industry research reports

PROJECTS

08/23 - 01/24 **GLOBAL ALLIANCE OF UNIVERSITIES ON CLIMATE** Vancouver, Canada
Climate x Leadership Training Program (Tableau)
- Expanded knowledge of global governance through in-depth conversations with industry experts
- Organized multiple climate-focused seminars; drove dialogues engaging hundreds of participants

07/23 - 08/23 **CHINA-ITALY DESIGN INNOVATION HUB** Milan, Italy
Interdisciplinary Design Innovation Scholar
- Conducted field research on museum guide systems and urban spaces in Milan and Florence
- Collaborated with government to develop renovation proposal for Italian-style area

COMPUTATIONAL SKILLS / OTHER

Programming Languages: Python (Pandas, Matplotlib, Numpy, Scipy), MATLAB, SQL, R, C++
Languages: English (fluent), Mandarin (native)
Certifications: National 2nd Prize in Business Translation and Writing, AIDA 2 Star Freediver

ARISTO LIU

(234) 417-2529 // aristo.liu@nyu.edu // linkedin.com/in/aristoliu/

EDUCATION

Expected 12/26 **NEW YORK UNIVERSITY** New York, NY
The Courant Institute of Mathematical Sciences
M.S. in Mathematics in Finance
- ***Expected Coursework:*** computing in finance, financial securities and markets, stochastic calculus, risk and portfolio management

08/21 - 05/25 **COLUMBIA UNIVERSITY** New York, NY
B.A. in Mathematics and Astrophysics (Double Major)
Minor: Computer Science
- ***Coursework:*** modern algebra, real analysis, probability theory, modeling, discrete math, data structures, machine learning, simulations, modern astrophysics, quantum mechanics, electricity and magnetism
- ***Honors/Awards:*** Dean's List

EXPERIENCE

05/24 - 03/25 **AMERICAN MUSEUM OF NATURAL HISTORY** New York, NY
Undergraduate Student Researcher and Team Coordinator (Python)
- Analyzed large-scale galaxy simulations to study interstellar magnetic fields, employing data processing, visualization, and statistical modeling techniques
- Organized and led team of NY undergraduate student researchers in collaboration with Stanford research group by coordinating meetings and delegating simulation and analysis tasks
- Designed and presented research poster at 245th American Astronomical Society meeting (Jan 2025) for audience of astronomy professors and graduate students

08/22 - 09/23 **COLUMBIA UNIVERSITY** New York, NY
Undergraduate Student Researcher (Python)
- Developed custom Python tools to run and analyze simulations of black hole spin evolution, using numerical integration and data visualization techniques
- Studied advanced simulation techniques and recent astrophysical literature
- Refined prior estimates of black hole equilibrium spin by applying new computational methods and drafted research paper on results

PROJECTS

06/25 - Present **INDEPENDENT RESEARCH** New York, NY
Algorithmic Trading Project (Python)
- Developed, backtested, and refined algorithmic trading strategy, achieving simulated annualized returns of 9%
- Analyzed performance of trading strategy using graphs, Sharpe ratio, and volatility
- Gained insight into limitations of backtested strategies

10/23 - 12/23 **COLUMBIA UNIVERSITY** New York, NY
N-Body Integrator (Python)
- Implemented IAS15 integrator, a 15th order integrator for gravitational dynamics
- Conducted Monte Carlo simulations on varied initial conditions to study effect of stellar fly-bys on binary systems (N=3)
- Wrote report on results, discussing methodology and physical implications

COMPUTATIONAL SKILLS / OTHER

Programming Languages: Python, JavaScript, Java, LaTeX, Microsoft Excel
Languages: English (native), Mandarin (fluent), Spanish (conversational, passed Columbia University requirement)
Honors: FIDE Master Title (International Chess Federation), National Master (US Chess Federation), Pan-American Youth Chess Champion, World Amateur Team Championship: "Top College Team" Captain
Leadership: Columbia Chess Club President (06/22-05/24)
Other: US Citizen

SIQI LIU

(646) 644-5069 // siqi.liu@nyu.edu // linkedin.com/in/siqi-liu-msmf

EDUCATION

Expected 12/26 **NEW YORK UNIVERSITY** New York, NY
The Courant Institute of Mathematical Sciences
M.S. in Mathematics in Finance
- ***Expected Coursework:*** portfolio management, stochastic calculus, dynamic asset pricing, machine learning, algorithmic trading, scientific computing

09/21 - 06/25 **SHANGHAI JIAO TONG UNIVERSITY** Shanghai, China
B.S. in Mathematics and Applied Mathematics, Minor in Accountancy
- ***Coursework:*** mathematical statistics, probability, stochastic process, time series analysis, mathematical finance, PDE, ODE, real analysis, C++, econometrics
- ***Honors/Awards:*** Outstanding Graduate (top 10%), Academic Excellence Scholarship (top 20%)

EXPERIENCE

10/24 - 12/24 **GUOLIAN FUTURES** Shanghai, China
Quantitative Research Intern (Python)
- Developed asset rotation strategies with Python, optimizing returns from stock index futures, treasury bond futures, and commodity futures based on financial indicators
- Created new timing indicators using PMI data and exchange rates to identify stagflation phases
- Built robust backtesting system that incorporated slippage and transaction costs
- Achieved backtested annual return of 19.9%, Sharpe ratio of 1.81, and max drawdown of 5%

07/24 - 09/24 **HENGTAI SECURITIES** Shanghai, China
Quantitative Research Intern (Python, R)
- Constructed Barra CNE6 style factors and operated cross-sectional regressions to get factor return matrices and residual returns for performance analysis
- Analyzed quarterly performance of stock portfolios, deriving 5.8% factor returns
- Conducted regression analysis to evaluate effect of interest rate differentials on FX futures prices, finding that contracts with maturities over 6 months achieved higher R-squared values of 0.81
- Analyzed daily stock market data with technical indicators and communicated with senior traders

01/24 - 03/24 **ERNST & YOUNG HUA MING** Shanghai, China
Audit Intern (Excel)
- Conducted credit risk audits of bank loan portfolios for client Cathay United Bank, analyzing borrower financials and key risk indicators to evaluate loan quality
- Assessed risk of more than 80 wealth management products, identifying 4% as high risk

PROJECTS

11/24 - 05/25 **SHANGHAI JIAO TONG UNIVERSITY** Shanghai, China
Volatility-Managed Multi-Factor Strategy Research (Python)
- Incorporated realized, implied, and combined volatility measures to dynamically adjust factor exposures in multi-factor portfolio based on Fama-French five-factor model
- Analyzed relationship between different volatility measures and optimal factor exposures across different skewness and volatility regimes in Hong Kong market
- Demonstrated that combined volatility approach outperformed under varying market conditions, with Sharpe ratio of 1.91 and annualized alpha of 14.8%

09/23 - 12/23 **Black-Scholes Option Pricing Model Research (Python)** Shanghai, China
- Solved Black-Scholes-Barenblatt equation with Python using forward and backward difference methods; achieved errors of less than 0.01% compared to solution from Black-Scholes model

COMPUTATIONAL SKILLS / OTHER

Programming Languages: Python, C++, MATLAB, R, LaTeX, Origin
Languages: English (fluent), Mandarin (native)
Certification: Machine Learning from University of Washington on Coursera

YIHAN MAO

732-532-5801 // yihan.mao@nyu.edu // linkedin.com/in/yihan-mao1

EDUCATION

Expected 12/26 **NEW YORK UNIVERSITY** New York, NY
The Courant Institute of Mathematical Sciences
M.S. in Mathematics in Finance
- ***Expected Coursework:*** stochastic calculus, asset pricing theory, portfolio and risk management, financial markets and instruments, numerical methods, Python and C++ programming for finance, machine learning

09/21-01/25 **RUTGERS UNIVERSITY** New Brunswick, NJ
B.A. in Mathematics, Minor in Computer Science
- ***Coursework:*** stochastic processes, probability and statistics, real analysis, multivariable calculus, linear algebra, linear programming, optimization methods, data structures and algorithms, programming in Python, C, and C++, numerical methods
- ***Honors/Awards:*** Dean's List (All Semesters)

EXPERIENCE

11/24-03/25 **KEENSIGHT.ai** Philadelphia, PA
AI Data Engineering Intern (Python)
- Automated translation of academic documents using PyMuPDF, python-docx, and Generative AI, increasing processing speed by 30%
- Improved formatting consistency across multilingual outputs, reducing manual edits
- Corrected OCR and structural errors in scanned PDFs to enhance data quality

06/24-08/24 **EXPORT-IMPORT BANK OF CHINA** Beijing, China
Risk Management Intern (Python)
- Analyzed commodity prices (LME metals, crude oil) using WIND financial terminal and Python to identify volatility drivers
- Modeled Q2 2024 iron and steel import trends to assess macro and policy risks

07/23-09/23 **TCL TECHNOLOGY** Shenzhen, China
Data Analysis Intern (Python)
- Built Python tools to classify more than 1,200 bug reports, reducing triage time by 50%

PROJECTS

09/23-12/23 **RUTGERS UNIVERSITY** New Brunswick, NJ
Linear Optimization Model Implementation
- Implemented Simplex, Dual Simplex, and Two-Phase methods to solve matrix-based linear programming problems
- Performed sensitivity analysis to assess solution stability under varying constraints

01/23-03/23 **Cache Optimization in Matrix Multiplication (C)**
- Applied loop tiling, loop interchange, and blocking techniques to reduce cache misses in C matrix multiplication
- Benchmarked runtime and memory efficiency against unoptimized baselines

COMPUTATIONAL SKILLS / OTHER

Programming Languages: Python, Java, C, Verilog HDL
Languages: English (Fluent), Mandarin (Native)
Interests: Custom PC building, hardware optimization

HAORAN (CHRIS) OUYANG

(551) 998-4485 // haoran.ouyang@nyu.edu // linkedin.com/in/haoran-ouyang/

EDUCATION

Expected 12/26 **NEW YORK UNIVERSITY** New York, NY
The Courant Institute of Mathematical Sciences
M.S. in Mathematics in Finance
- ***Expected Coursework*:** deep learning, stochastic analysis, portfolio management, asset pricing

09/21 - 06/25 **RENMIN UNIVERSITY OF CHINA** Beijing, China
Dual B.S. Degrees in Mathematics and Finance
- ***Coursework*:** regression analysis, real analysis, functional analysis, PDEs, numerical methods, stochastic processes, deep learning, corporate finance, quantitative investment
- ***Honors*:** Grand Prize Scholarship for Academic Excellence (#1 in Major, Consecutively for 3 Years)

EXPERIENCE

11/24 - 04/25 **ALLIANZ ASSET MANAGEMENT** Beijing, China
Quantitative Research Intern (Python, R)
- Built real-time updating library of 120 alpha factors with information coefficients (IC) more than 0.03 for index futures timing based on macro indicators, microstructure signals, and tick-level data
- Developed system integrating numerous database APIs, supporting dynamic data calls
- Built modular backtesting and risk evaluation framework from scratch, tailored for index futures timing strategies; integrated IC analysis, signal decay, risk premia estimation, and portfolio simulation
- Optimized GRU-based models for alpha signal generation by tuning forecast horizons, turnover constraints, and risk-neutralization methods; enhancements led to Sharpe ratio of 2.7 in backtest

07/24 - 11/24 **SHANGHAI REDWALL TAIHE FUND MANAGEMENT**
(A-share focused quantitative fund with more than $700M AUM) Beijing, China
Quantitative Research Intern (Python)
- Explored over 50 microstructure-based alpha factors from tick-level data, capturing order imbalance and trade size signals to exploit short-term price pressure
- Applied XGBoost and neural networks with custom loss functions tailored for alpha factors generation, and accelerated training with multiprocessing for parallel computation
- Built supply chain weight matrix using inter-company transaction data, integrating upstream/downstream dynamics to propagate fundamental shocks across related firms: average improvement of 1.5% in daily IC
- Forecasted PM-session excess returns using LSTM and MLP with daily/intraday factor inputs

06/24 - 07/24 **BEIJING JIAWO ASSET MANAGEMENT**
(A-share focused quantitative fund with more than $700M AUM) Beijing, China
Quantitative Research Intern (Python, DolphinDB)
- Researched high-frequency alpha signals with DolphinDB (time-series database supporting SQL- and Python-like scripting) based on order book data
- Analyzed and enhanced weak signals by applying neutralization, restricting data to intraday windows, and analyzing cross-factor interactions under different market regimes
- Created new composite factors using weighted aggregation or machine learning to maximize IC and extended factor-construction logic from low-frequency data to high-frequency data

PROJECTS

01/25 - 04/25 **RENMIN UNIVERSITY OF CHINA** Beijing, China
Dissertation: Deep Learning-Based Timing Strategy for Stock Index Futures (Python)
- Built return forecasting models using more than 150 daily spot-futures factors with hybrid deep learning architectures, achieving optimal performance through hyperparameter tuning
- Developed futures trading strategies using prediction outputs and conducted backtest; achieved a 2.25 Sharpe ratio in backtesting CSI 300 futures strategy

COMPUTATIONAL SKILLS / OTHER

***Programming Languages*:** Python, C, R, DolphinDB
***Languages*:** English (fluent), Mandarin (native)
***Activities*:** First Prize in National High School Mathematics League, Directed choir to win Gold in campus-level contest

YIFEI REN

646-423-3824 // yifei.ren@nyu.edu // linkedin.com/in/yifeirenyr101/

EDUCATION

Expected 12/26 **NEW YORK UNIVERSITY** New York, NY
The Courant Institute of Mathematical Sciences
M.S. in Mathematics in Finance
- ***Expected Coursework:*** risk & portfolio management, dynamic asset pricing

09/20 - 05/24 **NEW YORK UNIVERSITY** New York, NY and Shanghai, China
B.S. in Mathematics
- ***Coursework:*** multivariable calculus, PDE, ODE, numerical analysis, stochastic processes, math modeling, probability theory
- Selected as student delegate for private roundtable with former U.S. Secretary of State Antony Blinken at NYU Shanghai Campus

EXPERIENCE

06/24 - 08/25 **BEIJING DDHS CAPITAL CO. LTD.** Beijing, China
Investment & Trading Analyst
- Managed $1M proprietary capital to generate over 25% excess returns vs. CSI 300 from Sep 2024 to Jul 2025 through integrated analysis and dynamic portfolio optimization
- Engaged regularly with senior regulatory officials in multiple government agencies to translate insights into actionable investment strategies and portfolio adjustments
- Structured 3 LPs, and managed fund's equity allocations, led negotiations with portfolio companies, and drafted and negotiated investment agreements
- Attended CICC, CITIC Securities, and J.P. Morgan Asset Management investment forums; conducted financial/legal due diligence on multiple listed companies

07/23 - 09/23 **HUATAI SECURITIES**
(Top 4 Chinese securities firm) Beijing, China
Equity Capital Markets Investment Analyst
- Executed valuations, determined issuance pricing, and participated in key IPO/SEO meetings for 5 listed companies; coordinated cross-functional teams
- Distilled key international macro insights and KPIs from Bloomberg, Wind, and other data terminals for executive leaders' decision making
- Informed investment decisions via fundamental and quantitative analysis; classified stocks and evaluated key metrics like Sharpe, volatility, drawdown, alpha, and beta
- Managed investor relations for IPO and SEO projects; clarified investment mandates and secured allocations

PROJECT

12/23 - 05/24 **NYU INDEPENDENT STUDY MATH THESIS**
Stochastic Differential Equation and Its Application in Finance
- Investigated foundational stochastic calculus; analyzed properties of Brownian motion and established interconnections with Itô's integral and lemma
- Derived Black-Scholes option pricing model using Brownian motion and Itô's lemma

COMPUTATIONAL SKILLS / OTHER

Programming & Financial Tools: MATLAB, Python (Pandas, NumPy), SQL, Bloomberg, WIND, Excel
Languages: English (fluent), Mandarin (native)
Athletics: China National Second Level 1500m Athlete, Deadlift Personal Record 397 lbs

MISHEL SKENDERI

(917) 570-2178 // m.skenderi@nyu.edu // linkedin.com/in/mishel-skenderi-phd

EDUCATION

Expected 12/26 **NEW YORK UNIVERSITY** New York, NY
The Courant Institute of Mathematical Sciences
M.S. in Mathematics in Finance
- ***Expected Coursework*:** computing in finance, financial securities and markets, risk and portfolio management, stochastic calculus and dynamic asset pricing

08/16 - 05/21 **BRANDEIS UNIVERSITY** Waltham, MA
Ph.D. in Mathematics (2021); **M.A. in Mathematics** (2018)
- ***Coursework*:** real, complex, and functional analysis; abstract algebra (group and ring theory, commutative algebra); differential and algebraic topology and geometry; ergodic theory and homogeneous dynamics

09/11 - 06/15 **THE UNIVERSITY OF CHICAGO** Chicago, IL
B.A. in Mathematics
- ***Coursework*:** real, complex, and functional analysis; abstract algebra (group and ring theory, linear algebra); ordinary and partial differential equations; point-set topology; mathematical logic; computability theory; statistics; optimization; some economics courses; various humanities and social science core courses; general chemistry; core biology

EXPERIENCE

08/21 - 06/24 **THE UNIVERSITY OF UTAH** Salt Lake City, UT
Department of Mathematics
Wylie Assistant Professor (Lecturer)
- 3-year postdoctoral appointment in Department of Mathematics
- Conducted research in Diophantine approximation and geometry of numbers
- Wrote and published research articles, often with collaborators
- Taught 8 courses as instructor of record, including single-variable calculus, multi-variable calculus, linear algebra, and introduction to real analysis
- Held office hours; designed lectures, supplementary learning materials, homework assignments, exams, and quizzes; proctored and graded exams and quizzes

08/17 - 05/19 **BRANDEIS UNIVERSITY** Waltham, MA
Department of Mathematics
Graduate Student Instructor
- Taught 4 single-variable calculus courses as instructor of record
- Held office hours; designed, proctored, and graded exams and quizzes

PUBLICATIONS

***Inhomogeneous Diophantine approximation for generic homogeneous functions*. (Joint with D. Ya. Kleinbock.) Int. J. Number Theory 19 (2023), no. 06, 1269–1293, DOI 10.1142/S1793042123500628.**
***Higher-rank pointwise discrepancy bounds and logarithm laws for generic lattices*. (Joint with S. Kim.) Acta Arith. 205 (2022), no. 3, 227–249, DOI 10.4064/aa220325-17-8.**
***Khintchine-type theorems for values of subhomogeneous functions at integer points*. (Joint with D. Ya. Kleinbock.) Monatsh. Math. 194 (2021), no. 3, 523–554, DOI 10.1007/s00605-020-01498-1.**
***Some results on random unimodular lattices*. Proc. Amer. Math. Soc. 149 (2021), no. 2, 539–553, DOI 10.1090/proc/15241.**

SKILLS / OTHER

***Computer Skills*:** Python, Microsoft Excel, TeX, LaTeX, Overleaf
***Languages*:** English (native), Albanian (native), French (intermediate)
***Work Authorization*:** U.S. Citizen

JUNXIAN SONG

(201) 780-1868 // js15524@nyu.edu // www.linkedin.com/in/junxiansong

EDUCATION

Expected 09/25 **NEW YORK UNIVERSITY** New York, NY
The Courant Institute of Mathematical Sciences
M.S. in Mathematics in Finance
- ***Coursework:*** risk management, strategies, computing in finance, asset pricing

09/23 - 09/24 **UNIVERSITY COLLEGE LONDON** London, UK
M.Sc. in Data Science
- ***Coursework:*** machine learning, deep learning, time series analysis, data engineering
- ***Honors/Awards:*** Distinction (Top 10% of cohort)

09/20 - 07/23 **UNIVERSITY OF MANCHESTER** Manchester, UK
B.Sc. (Honors) in Mathematics and Statistics
- ***Coursework:*** stochastic analysis, statistical inference, financial modeling, computing
- ***Honors/Awards:*** Distinction (Top 5% of cohort)

EXPERIENCE

03/25 - Present **XINYUAN ASSET MANAGEMENT CO., LTD.** Shanghai, China
Quant Research Intern (Python)
- Enhanced CTA strategy (frequency-upgraded) for rotational markets; deployed live on CSI 1000 and CSI 300, delivering more than 10% annualized return with less than 0.5% max drawdown
- Designed commodity-futures inter-commodity (cross-product) spread-arbitrage framework generated more than 70% annualized returns over 4-year backtests with slippage modeling
- Developed DGDNN model on CSI 1000; delivered 0.62 F1 score, 18% excess return
- Extended HIST and refined its hidden concept module; delivered about 14% alpha on CSI 300

09/24 - 02/25 **HUATAI FUTURES** Dalian, China
Futures Research Intern (Python)
- Researched corn, soybean, and live hog futures; analyzed market structure, contract specs/calendars, carry/basis, and seasonality to inform spread/hedge design
- Used technical analysis (K-line patterns, MACD, KDJ) to identify short-term price trends
- Conducted fieldwork with growers, feed mills, crushers, and processors; collected inventory, margin, and throughput data to calibrate supply-chain and fundamental models

07/22 - 02/23 **CHINA NATIONAL PETROLEUM CORPORATION** Shenyang, China
05/21 - 12/21 **Commodity Hedging & Operations Analytics Intern**
- Co-designed rules in CNPC's internal futures simulation (Tonghuashun), defining risk limits, margin thresholds, and execution protocols to sharpen risk awareness and pricing intuition
- Built Excel calculator comparing spot margins to hedge costs (term structure, basis, margin interest, fees/slippage), giving refined-products desk a quick view of when to hedge
- Tested CNPC's waterway-routing model with real barge schedules; logged deviations from dispatcher-selected routes and fed findings into next parameter update

PROJECT

02/22 - 04/22 **CARNEGIE MELLON UNIVERSITY** Remote
Application and Practice of Data Science (Python)
- Implemented machine learning models in Python, including Bayesian inference, random forest
- Analyzed real-world datasets with end-to-end workflows, from preprocessing to evaluation
- Conducted research on random forest interpretability and performance

COMPUTATIONAL SKILLS / OTHER

Certifications: **Certificate in Quantitative Finance (CQF) - Expected Nov 2025** (exams completed)
Programming Languages: Python, RStudio, MATLAB, Wind, Excel
Languages: English (fluent), Mandarin (native)
Interests: Trading (Built A-share strategy with 380% annual return; max drawdown 48%), Ultimate Frisbee (China HS League - Gold), Violin (National Gold Award), Piano (National Youth Piano Competition - Provincial Gold)

BOYUAN SU

(347) 718-1348 // boyuan.su@nyu.edu // linkedin.com/in/boyuansu

EDUCATION

Expected 12/26 **NEW YORK UNIVERSITY** New York, NY
The Courant Institute of Mathematical Sciences
M.S. in Mathematics in Finance
- ***Expected Coursework:*** Machine learning and computational statistics, stochastic calculus & dynamic asset pricing, computing in finance, risk and portfolio management

09/22 – 06/25 **UNIVERSITY COLLEGE LONDON** London, UK
B.S. in Mathematics
- ***Coursework:*** Probability and statistics, advanced probability, machine learning and artificial intelligence, measure theory, numerical methods, stochastic processes
- Honors: top 5% out of approximately 300 students

EXPERIENCE

07/24 - 08/24 **SHENWAN HONGYUAN SECURITIES** Beijing, China
Quantitative Analyst Intern (Python, SQL)
- Used Requests/bs4 to scrape 10 years' barrier option price/cost data; visualized via Matplotlib; analyzed price behavior near barrier levels; discovered volatility spike on approach
- Used binary tree, finite difference method and Monte Carlo simulation to price exotic options; Compared simulation outputs with market quotes; found max 5% differences
- Designed trading strategy using pool of technical indicators; applied feature importance and Shapley Value to select top indicators (momentum, RSI, Bias Ratio)
- Predicted daily barrier option returns via regularized kernel and LSTM; directional strategy achieved Sharpe 1.5 ex costs in backtesting

07/23 - 08/23 **HUAXI SECURITIES** Shanghai, China
Quantitative Analyst Intern (Python)
- Decomposed individual stock risks via Barra risk factor analysis in Chinese A-Share market; fitted regression coefficients on liquidity, volatility, earnings growth, and momentum factors
- Engineered government policy factor; boosted model's R-squared by 20%
- Studied stationarity of stock prices and returns; used Augmented Dickey-Fuller test for hypothesis testing; spotted non-stationarity in prices and stationarity in return of 90% symbols
- Selected impactful features from existing pool; applied hard filters of IC 0.05
- Used PCA on some features to condense set; mitigated RNN models' curse of dimensionality

PROJECTS

06/25 - 07/25 **Cross Section Stock Selection Strategy (Python)** New York, NY
- Constructed more than 100 alpha signals for US equities based on price and volume inputs; achieved low collinearity between features
- Built backtesting framework and factor management system; adopted vectorized computation and multiprocessing to accelerate factor generation and backtesting process by more than 3.5x
- Combined alpha signals through deep learning models including MLP, ResNet, LSTM, and Transformer; achieved out-of-sample Sharpe of 1.5

06/23 - 07/23 **CALIFORNIA INSTITUTE OF TECHNOLOGY** Pasadena, CA
Research on Option Pricing and Hedging Strategies (Python)
- Collected recent 8 years of FTSE 100 index data; used Pandas to build dataframes for index prices and rolling volatility
- Preprocessed abnormal values via heatmap and outlier analysis; produced cleaned dataset for pricing research
- Led group of 4 to analyze volatility smile and interest rate processes' impact on prices; used GARCH models to fit implied volatility
- Adopted Vasicek model to convert constant rates into stochastic rates; bridged gap between fitted prices and live quotes by 17 %

COMPUTATIONAL SKILLS / OTHER

Programming Languages: Python (NumPy, Pandas, Matplotlib, Seaborn, sk-learn), SQL, Java, C++
Languages: English (fluent), Mandarin (native)

DONG (FRANK) WANG

(917) 594-9581 // dong.wang@nyu.edu // linkedin.com/in/dong-wang-frank

EDUCATION

Expected 12/26 **NEW YORK UNIVERSITY** New York, NY
The Courant Institute of Mathematical Sciences
M.S. in Mathematics in Finance
- ***Coursework:*** stochastic calculus, dynamic asset pricing, valuation of financial securities, risk and portfolio management, machine learning, computational statistics

06/20 - 06/25 **UNIVERSITY OF TORONTO** Toronto, Canada
B.S. in Specialist Statistics - Quantitative Finance Stream
- ***Coursework:*** linear algebra, multivariate calculus, differential equations, multivariate statistics, regression analysis, probability and stochastic processes, time series analysis
- ***Honors/Awards:*** Dean's List (2021-2025); Graduation with High Distinction

EXPERIENCE

09/24 - 11/24 **ICARUS FUND**
(Asset management firm with $900M in AUM)
Quantitative Research Intern (Python) New York, NY
- Conducted weak-form market efficiency testing on seasonality/weekly patterns of Moderna and its competitors by implementing autoregressive and random walk models
- Compared ARIMA, VAR, and state-space models for stock price prediction, producing diagnostic reports that improved forecasting accuracy for investment strategies

01/24 - 03/24 **HUATAI SECURITIES** Shanghai, China
Quantitative Analyst Intern (Python)
- Enhanced company's asset allocation by implementing mean-variance and Black-Litterman models, achieving 0.21 absolute increase in portfolio Sharpe ratio
- Developed small-cap stock selection strategy inspired by Fama-French factor principles, achieving annualized return of 18.41% over 6-month backtest period

05/23 - 08/23 **SHANGHAI FUNDAMENTAL & BEYOND ASSET MANAGEMENT** Shanghai, China
Financial Analyst Intern (Python)
- Improved company's trading performance by designing hybrid strategy that combined technical and fundamental signals, achieving 30% relative increase in win rate
- Analyzed profitability and growth potential of companies in hydrogen energy sector to provide reliable reference for investment decisions

PROJECTS

01/24 - 06/24 **UNIVERSITY OF TORONTO** Toronto, Canada
Empirical Investigation of Carbon Emissions Trading Systems (R)
- Investigated impact of primary market auctions on secondary market prices within EU Emissions Trading System (EU ETS), in collaboration with 4 other students
- Verified that carbon emissions trading market is consistent with EMH by implementing ARIMA regression model on carbon price with commodities and meteorological data
- Developed trading strategies based on auction and spot prices of carbon emission allowances, achieving maximum cumulative PnL of 43% over 4 years

09/23 - 12/23 **UNIVERSITY OF TORONTO** Toronto, Canada
Video Track Analysis for HeroRATs' Odor Preference (R)
- Collaborated with APOPO, an NGO that aims to detect landmines or tuberculosis using scent-detection animals like HeroRATs
- Identified key behavioral patterns and their implications for HeroRATs' odor preferences by performing principal component analysis on dataset of rats' video behaviors

COMPUTATIONAL SKILLS / OTHER

Programming Languages: Python, R, C
Languages: English (fluent), Mandarin (native)
Activities: UofT Teaching Assistant; UofT Green Path Association Mentor

MENGLIN (WARREN) WU

(929) 805-0344 // menglinwu@nyu.edu // linkedin.com/in/menglinwu5

EDUCATION

Expected 12/26 **NEW YORK UNIVERSITY** New York, NY
The Courant Institute of Mathematical Sciences
M.S. in Mathematics in Finance
- ***Coursework:*** computing in finance, financial securities and markets, risk & portfolio management, stochastic calculus, machine learning & computational statistics

09/21 - 06/25 **FUDAN UNIVERSITY** Shanghai, China
B.S. in Applied Mathematics
- ***Coursework:*** functions of real variables, functional analysis, probability Theory, stochastic processes, stochastic calculus, mathematical statistics, partial differential equations
- ***Honors/Awards:*** First-class Joint Scholarship (top 2%)

EXPERIENCE

03/25 - 06/25 **SHENZHEN HANRONG PRIVATE FUND CO., LTD** Shanghai, China
Quantitative Research Intern (C++, Python)
- Developed and optimized C++ streaming system to process full-day high-frequency crypto order book and trade data within 3–5 minutes, generating bar-level datasets with structural features
- Trained LightGBM models with Optuna-tuned hyperparameters with IC 0.06, IR 0.47, strengthening signal robustness across time intervals
- Diagnosed and selected robust cross-sectional features by analyzing IC, IR, grouped returns, and feature importance across time scales, contributing to scalable and modular modeling pipeline

07/24 - 09/24 **ZHEJIANG FENGDA INVESTMENT MANAGEMENT CO., LTD.** Hangzhou, China
Research Intern – Discretionary Trading Strategies
- Analyzed early auction volumes and overnight bid data to predict intraday momentum, limit-up continuations, and potential manipulation using OBV-based signals.
- Developed trend-following futures strategies using EMA, MACD, KD, and BIAS indicators, contributing to 15% live return over 2 months in real-account trading

07/23 - 09/23 **GUOTAI JUNAN SECURITIES CO., LTD.** Shanghai, China
Investment Banking Intern
- Conducted industry research by building company–industry relationship maps from IPO prospectuses and research reports, strengthening value chain analysis
- Participated in site visits of high-tech firms and supported IPO processes through drafting meeting notes and preparing business documentation

PROJECTS

FUDAN UNIVERSITY Shanghai, China

01/24 - 11/24 **Data-pooling Algorithms in Contextual Bandits (Python)**
- Designed a novel weighted-loss regression framework addressing adaptive pooling challenges in contextual bandits
- Derived estimation error and regret bounds; validated performance through experiments, producing independently drafted manuscript

05/23 **Futures Prices Correlation Analysis and Investment Strategy Research (Python, MATLAB)**
- Performed forward multiple regression with robust standard errors and high goodness of fit, effectively resolving multicollinearity issues
- Established first-difference time-series analysis using residuals, constructed cointegration arbitrage model, with backtesting results demonstrating strong performance
- Awarded Third Prize in 25th East China Cup Mathematical Modeling Contest

COMPUTATIONAL SKILLS / OTHER

Programming Languages: Python, MATLAB, C++
Languages: English (fluent), Mandarin (native)

BOHONG XU

(347) 531-6675// bohong.xu@nyu.edu // linkedin.com/in/bohong-xu

EDUCATION

Expected 12/26 **NEW YORK UNIVERSITY** New York, NY
The Courant Institute of Mathematical Sciences
M.S. in Mathematics in Finance
- ***Coursework:*** object-oriented programming, stochastic calculus, portfolio optimization, market microstructure, Black-Scholes, machine learning

09/21 - 06/25 **WUHAN UNIVERSITY** Wuhan, China
B.S. in Physics
- ***Coursework:*** calculus, linear algebra, probability theory, statistics, complex function, ODEs, PDEs, computational physics, thermal dynamics
- ***Honors/Awards:*** Academic Outstanding Students Scholarship (2022-2023)

EXPERIENCE

03/25 - 06/25 **SHUI-MU LONG-TERM INVESTMENT MANAGEMENT CO., LTD.** Beijing, China
Quantitative Research Intern – Commodity Trading Advisor (Python)
- Engineered net position factor (LRSR) from seat-level futures data of top 10 brokerages, uncovering behavioral patterns of dominant institutional participants
- Designed cross-sectional long-short strategy based on LRSR, achieving annualized Sharpe ratio of 1.49 from Jan 2016 to Mar 2025
- Developed black box following strategy based on position rankings of leading brokerage seats, with Guotai Junan Futures emerging as most predictive and profitable seat
- Performed strategy attribution using technical indicators (e.g., MACD), with 78% of position shifts aligning with directional signals, validating signal robustness

10/24 - 01/25 **CAUSIS MANAGEMENT (WUHAN) CO., LTD.** Wuhan, China
Quantitative Research Intern – High Frequency Trading (Python)
- Aggregated tick-level data to quantify per-second active buy and sell volumes of large orders, using 90th percentile large-order thresholds defined to capture key capital flow
- Enhanced short-term return predictability by integrating large-order volume into sentiment factors, achieving 9.87% correlation with 60-second returns
- Engineered factor combinations and trained CatBoost regression model, improving 60-second return IC by 5.7% through nonlinear interaction modeling

07/23 - 09/23 **HUAFU SECURITIES CO., LTD.** Putian, China
Quantitative Research Intern – Stock Trading Strategy (Python)
- Evaluated PB-ROE stock selection strategy by annually ranking A-share companies and constructing portfolio of top 20 stocks based on combined valuations and profitability
- Backtested from 2002 to 2023 with annual rebalancing, achieving 93% success rate of positive returns in following year

PROJECT

09/24 - 11/24 **WUHAN UNIVERSITY** Wuhan, China
Empirical Asset Pricing Analysis (Python)
- Analyzed firm-level betas and investigated relationship between beta and future stock returns by constructing beta-sorted portfolios and examining CAPM
- Applied Fama-French three-factor model with Fama-MacBeth regression, confirming size and value factors' explanatory power

COMPUTATIONAL SKILLS / OTHER

Programming Languages: Python, C++, SQL, MATLAB
Languages: English (fluent), Mandarin (native)
Trading Experience: 4 years' hands-on experience in A-share market leading quantitative trading team and developing strategies executed via QMT

LEXI (ANTHONY) YAO

(518) 256-1722 // lexiyao@nyu.edu // linkedin.com/in/lexiyao

EDUCATION

Expected 12/26 **NEW YORK UNIVERSITY** New York, NY
The Courant Institute of Mathematical Sciences
M.S. in Mathematics in Finance
- ***Expected Coursework:*** stochastic calculus, asset pricing, Python in finance, portfolio management, derivative market, machine learning, market microstructure, time series analysis

09/21 - 06/25 **CENTRAL UNIVERSITY OF FINANCE AND ECONOMICS** Beijing, China
B.Econ. in Financial Engineering
- ***Coursework:*** advanced algebra, stochastic process, financial econometrics, big data in finance, data structures and algorithms, artificial intelligence, numerical methods in finance
- ***Awards:*** Academic Excellence Scholarship for 2021-2022 and 2023-2024
- ***Thesis:*** "Turnover Effect and Mispricing in Chinese Stock Market: Based on Endogenous Beta Perspective"

EXPERIENCE

05/25 - 07/25 **JINYI CAPITAL** Beijing, China
Quantitative Research Intern (Python)
- Reconstructed original order book from tick-by-tick transaction data and order flow information
- Constructed over 300 daily and intraday order factors based on snapshot tick data, tick-by-tick transaction records, and original order book information
- Collaborated on development of company's high-frequency trading system, optimized factor construction algorithms, and improved efficiency of order factor data ingestion

01/25 - 04/25 **HUATAI SECURITIES CO., LTD.** Shanghai, China
Financial Engineering Intern (Python)
- Applied LSTM and Lasso algorithms to enhance pair trading strategies, significantly improving risk-adjusted returns, with Sharpe ratio rising from 1.49 to 2.06
- Used XGBoost algorithm to develop weekly multi-factor strategy, achieving Sharpe ratio of 3.23 with 4.81% maximum drawdown
- Achieved 18.13% annual return through portfolio optimized by Black-Litterman model, including 18 assets from commodities to stocks

07/23 - 10/23 **GUOTAI HAITONG SECURITIES CO., LTD.** Shenzhen, China
Quantitative Allocation Intern (Python, KDB)
- Used KDB to construct over 100 price-volume factors from minute-level stock data; utilized Python for factor normalization and market capitalization neutralization
- Developed single-factor backtesting program for decile categorization and showed metrics like annual volatility, Sharpe ratio, and maximum drawdown
- Improved average factor annual return to 22.43% through factor aggregation weighted by information coefficient of each factor

PROJECT

09/23 - 01/24 **CENTRAL UNIVERSITY OF FINANCE AND ECONOMICS** Beijing, China
Application of Multi-Factor Strategy Based on Stacking Algorithms
- Mined 54 factors across 7 dimensions including momentum and profitability
- Applied logistic, random forest, SVM, LightGBM, and XGBoost algorithms for investment
- Constructed stacking ensemble learning model with multiple algorithms; conducted backtesting on aggregated ensemble models

COMPUTATIONAL SKILLS / OTHER

Programming Languages: Python, C++, MATLAB, SQL
Languages: English (fluent); Mandarin (native)
Activities: Advanced Mathematics teaching volunteer at Central University of Finance and Economics

ENYANG (TONY) YU

(347) 572-5321 // tony.yu@nyu.edu // linkedin.com/in/enyang-yu/

EDUCATION

Expected 12/26 **NEW YORK UNIVERSITY** New York, NY
The Courant Institute of Mathematical Sciences
M.S. in Mathematics in Finance
- ***Coursework:*** financial computing, portfolio management, derivatives pricing, stochastic calculus

09/20 - 05/24 **NEW YORK UNIVERSITY** New York, NY
B.A. in Economics and Mathematics
- ***Coursework:*** calculus, linear algebra, optimization, differential equations, real analysis, game theory, econometrics, probability, statistics, financial mathematics

EXPERIENCE

07/24 - 07/25 **LANDAIR PROPERTY ADVISORS** New York, NY
Senior Investment Sales Associate
- Valued commercial properties based on capitalization rates, comparables, and pro-forma analyses
- Generated more than $20 million in exclusive listings through cold-calling and targeted research
- Closed about $6 million worth of real estate transactions with buyer and seller representation
- Improved workflow efficiency by 10% and suggested improvements in technology systems
- Constructed robust client book of more than 20 developers, investors, and attorneys

06/23 - 08/23 **CHINA MERCHANTS SECURITIES CO, LTD.** Shenzhen, China
Quantitative Analyst Intern (Python, SQL)
- Exported financial data from Wind Financial Terminal to Excel and analyzed using VBA
- Organized and cleaned financial data in Python using SQL queries and Pandas
- Compiled clean, filtered, and ready-to-use data for more than 3,000 Chinese Class A stocks
- Experimented with effectiveness of financial factors using monotonicity testing, rank information coefficient, and Monte-Carlo simulations

PROJECTS

NEW YORK UNIVERSITY New York, NY

03/24 - 05/24 **Mathematics of Finance: Derivative Analysis and Simulation (Python)**
- Implemented deterministic finite difference and stochastic discretization schemes to approximate price and Greek paths of options in Python
- Conducted thorough analysis of effectiveness and accuracy of each method and discretization step by using Black-Scholes model as analytical baseline
- Simulated exotic option spread using Monte-Carlo simulations and Black-Scholes PDE
- Analyzed distribution of dynamically hedged portfolio over multiple time intervals

04/24 **Data Science Club x CBRE Datathon (Python)**
- Collaborated with other students on machine learning construction prediction model with 48-hour timeline
- Sourced satellite imagery of more than 200 plots of construction in various stages of development and processed data using PyTorch dataloaders and transforms
- Fine-tuned hyperparameters and additional layers on pretrained ResNet and VGG16 models to approximate estimated time of completion, achieving approximately 70% accuracy

COMPUTATIONAL SKILLS / OTHER

Programming Languages: Python, SQL, VBA
Languages: English (native), Mandarin (fluent)

CHEN ZHANG

(917) 487-9713 // chenzhang@nyu.edu // linkedin.com/in/chenlucaszhang

EDUCATION

Expected 12/26 **NEW YORK UNIVERSITY** New York, NY
The Courant Institute of Mathematical Sciences
M.S. in Mathematics in Finance
- ***Coursework:*** quantitative portfolio construction and optimization, VaR and expected shortfall, machine learning, singular value decomposition, algorithmic trading, fixed income models

09/21 - 07/24 **UNIVERSITY COLLEGE LONDON** London, England
B.S. in Economics and Statistics
- ***Coursework:*** probability and statistics, calculus, linear algebra, mathematical statistics, Bayesian statistics, ordinary/partial differential equations, Black-Scholes, stochastic processes, asset pricing, the Greeks, regression analysis, econometrics, game theory, financial accounting

EXPERIENCE

12/24 - 02/25 **CAIDA SECURITIES** Tangshan, China
Asset Management Intern
- Analyzed candlestick chart formations and MACD to identify market momentum, developing stock-picking strategies that enhanced client portfolio by 15%
- Conducted equity research on Chinese sports industry during period of sectoral growth; built DCF models to deliver stock pitches about relevant companies

06/24 - 08/24 **BANK OF TANGSHAN** Tangshan, China
Commercial Banking Intern
- Facilitated property appraisals as loan collateral and conducted comprehensive risk assessments, using statistics such as loan-to-value ratios
- Performed financial due diligence to ensure smooth supply chain financing transactions

07/23 - 09/23 **CSC FINANCIAL** Beijing, China
Summer Analyst in Fixed Income Department
- Used Wind financial terminal and proficient Excel skills to compile financial statements of various firms, streamlining data collection process by 20%
- Investigated 50 instances of bond defaults to identify industries prone to economic distress

PROJECTS

UNIVERSITY COLLEGE LONDON London, England

03/24 - 03/24 **Portfolio Risk Estimation Using Copula-Based Model (R)**
- Implemented ARMA-GARCH models in R to assess volatility and autocorrelation in log-returns of portfolio built from various index funds
- Conducted statistical tests, such as Jarque-Bera and Ljung-Box, for distribution analysis; used for-loops to streamline coding process
- Modeled dependency of assets using copulas; selected optimal model via BIC
- Performed Monte Carlo simulation to estimate VaR at 95% and 99% confidence levels; presented results to technical and non-technical audiences

03/23 - 03/23 **Analysing Demand in Fulton Fish Market (Stata)**
- Applied Stata's regression commands to estimate demand elasticity of products in Fulton Fish Market via both OLS and instrumental variable regressions, addressing simultaneity bias
- Used trigonometric functions to model seasonality, comparing method with conventional one with days-of-week dummies through data visualization
- Tested for autocorrelation using AR(1) model and ran regression again with robust standard errors to account for heteroskedasticity and autocorrelation, improving R^2 from 44% to 57%

COMPUTATIONAL SKILLS / OTHER

Programming Languages: Python, R, Stata, SQL
Languages: English (fluent), Mandarin (native)
Interest: Soccer (multiple MVP awards in collegiate league)

JIAQI (PETER) ZHANG

(646) 712-0565 // peter.zhang@nyu.edu // linkedin.com/in/peter-jiaqi-zhang/

EDUCATION

Expected 12/26 **NEW YORK UNIVERSITY** New York, NY
The Courant Institute of Mathematical Sciences
M.S. in Mathematics in Finance
- ***Expected Coursework:*** object-oriented programming, Brownian motion, Ito integral, Black-Scholes, derivatives valuation, stochastic processes

09/21 - 05/25 **NEW YORK UNIVERSITY** New York, NY
B.A. in Mathematics and Economics
- ***Coursework:*** corporate finance, data structure, probability & statistics, numerical analysis, ordinary differential equations, optimization, stochastic calculus
- ***Honors/Awards:*** Founders Day Award, cum laude

EXPERIENCE

05/25 - 08/25 **NEW YORK UNIVERSITY** New York, NY
Mathematics Tutor
- Tutored 30+ students in algebra, calculus, and statistics, improving average test scores by 20% through personalized lesson plans and problem-solving strategies
- Provided one-on-one tutoring in mathematics to more than 10 students, helping them build confidence and strengthen quantitative skills

12/22 - 01/23 **TAKENAKA PARTNERS** Los Angeles, CA
Investment Banking Winter Analyst (SQL, PitchBook)
- Evaluated and identified more than 100 targets for each client as part of targeted screening process for 2 buyside mandates in surgical navigation and kitchen maintenance service industries
- Brainstormed potential synergies through market research, and ranked targets using internal scoreboard with various criteria; estimated targets' annual revenue and revenue multiple ranges

09/22 - 11/22 **INDEPENDENT INVESTMENT BANKERS CORP** Austin, TX
Investment Banking Fall Analyst (S&P Capital IQ)
- Engaged in 3 sell-side M&A transactions and collaborated on teaser preparation
- Developed lists of more than 400 potential financial and strategic buyers, coordinated more than 10 conference calls; communicated on follow-up materials; updated buyers' interests

05/22 - 08/22 **BONDCLIFF PARTNERS** Boston, MA
Private Equity Summer Analyst (Excel, PitchBook)
- Conducted proprietary deal origination and screened 500 healthcare software companies for potential buyouts; updated database, drafted outreach emails, and prepared for conference calls
- Researched electronic health records industry, including summarizing annual filings of industry leaders and gauging key trends by speaking to industry experts
- Analyzed targets' business models, software features, competitions, and key customers

PROJECT

11/24 - 12/24 **NEW YORK UNIVERSITY** New York, NY
Strassen's Algorithm Analysis (Python)
- Performed in-depth analysis of Strassen's matrix multiplication algorithm, reducing time complexity, and benchmarked it against classical methods using Python
- Investigated numerical stability, memory usage, and threshold effects through log-log runtime plots, providing practical insights into Strassen's algorithm limitations and applicability
- Designed research poster and delivered formal presentation to communicate technical findings and practical implications of Strassen's algorithm to professors and classmates

COMPUTATIONAL SKILLS / OTHER

Programming Languages: Python, Java, SQL
Languages: English (fluent), Mandarin (native)
Activity/Affiliation: NYU Chinese Finance Club (Mentee), NYU Math for Economics Recitation Leader

YONGJIE (ERIC) ZHAO

(647) 988-2860 // ericzhao@nyu.edu // linkedin.com/in/eric-yongjie-zhao

EDUCATION

Expected 12/26 **NEW YORK UNIVERSITY** New York, NY
The Courant Institute of Mathematical Sciences
M.S. in Mathematics in Finance
- ***Coursework:*** mathematical finance, stochastic calculus, scientific computing, algorithmic trading, numerical methods, machine learning

09/20 - 06/25 **UNIVERSITY OF WATERLOO** Waterloo, ON, Canada
B. Math in Statistics; Minors in Pure Mathematics & Computer Science
- ***Coursework:*** optimization, mathematical programming, quantitative risk management, probability, statistical inference, deep learning, stochastic processes, combinatorics, numerical linear algebra, real analysis
- ***Honors/Awards:*** Dean's Honours, Mathematics Undergraduate Research Award, President's Scholarship, Alumni@Microsoft Entrance Scholarship in Mathematics

EXPERIENCE

05/25 - Present **UNIVERSITY OF WATERLOO** Waterloo, ON, Canada
Undergraduate Research Fellowship (MATLAB)
- Formulate theoretical proofs for Gauss-Newton-based primal-dual interior point method applied to semidefinite relaxation (SDP) of Maximal Stable Set Problem
- Designed MATLAB-based algorithms that reached 16-decimal accuracy on small-scale SDP problems, and identified scalability challenges that informed directions for further optimization

09/24 - 12/24 **Undergraduate Teaching Assistant - Probability**
- Graded assignments and quizzes for over 150 students, and ensured grading was consistent with course rubrics and learning objectives

05/23 - 09/23 **Research Assistant (Python)**
- Applied neural networks to estimate hedging ratios for path-dependent options, designing custom loss functions and evaluating performance relative to classical hedging methods
- Implemented RNN and LSTM models; visualized and analyzed hedge ratios to assess accuracy and improve understanding of model effectiveness in financial markets

09/21 - 12/21 **CSC FINANCIAL CO., LTD.** Shenzhen, China
Product Director Assistant (Excel)
- Analyzed performance persistence of 1,000 mutual funds by calculating Spearman correlation coefficients in Excel and visualizing trends to support portfolio strategy recommendations
- Aggregated team performance data; created daily charts to monitor key business metrics for management

PROJECTS

08/24 - 09/24 **UNIVERSITY OF WATERLOO** Waterloo, ON, Canada
Reinforcement Learning Algorithms in Control Problems (Python)
- Implemented Soft Actor-Critic (SAC) algorithms to solve humanoid robot movement tasks in OpenAi gymnasium
- Achieved more than 4,500 moving average reward during first 4,000 episodes and stabilized performance at higher range thereafter

07/24 - 08/24 **Expectation-Maximization Algorithm Applications in Quantitative Risk Management (R)**
- Demonstrated convergence of EM algorithm for multivariate-t distribution through proofs
- Applied in R to simulated (n=1000, d=10) and real financial data (3 indices, n=1257), achieving rapid convergence and improved tail-risk fit vs Gaussian

COMPUTATIONAL SKILLS / OTHER

Programming Languages: Python, MATLAB, R, LaTeX
Languages: English (fluent), Mandarin (native)
Certification: FRM Level II Candidate

LIAN ZHU

(805) 453-7056 // lianzhu@nyu.edu // linkedin.com/in/lianzhu0321

EDUCATION

Expected 12/26 **NEW YORK UNIVERSITY** New York, NY
The Courant Institute of Mathematical Sciences
M.S. in Mathematics in Finance
- ***Forthcoming Coursework:*** financial computing, stochastic calculus, dynamic asset pricing, risk portfolio management, derivatives, algorithmic trading, deep learning, Monte Carlo

09/21 - 03/25 **UNIVERSITY OF CALIFORNIA, SANTA BARBARA** Santa Barbara, CA
B.S. in Financial Mathematics and Statistics
- ***Coursework:*** linear algebra, numerical analysis, PDE, stochastic processes, regression analysis, time series, machine learning, fixed income, asset pricing, portfolio optimization, OOP
- ***Honors:*** Honors at Graduation (Top 10%)

EXPERIENCE

07/24 - 08/24 **CHINA MERCHANTS SECURITIES CO., LTD.** Shenzhen, China
Quantitative Research Intern (Python)
- Reviewed factor research reports from leading PRC securities firms; extracted quantitative formulas, produced weekly analytical summaries, and reported findings to the portfolio manager
- Analyzed investor behavior by decomposing reversal and momentum into daily returns and constructing factors from over 10 risk proxies using half-life-weighted excess returns
- Performed cumulative return and net-value analyses using data, backtested long-short hedged strategies (monthly IC 0.072; annualized return 1.80%; ICIR 3.15)

07/23 - 08/23 **BANK OF BEIJING CO., LTD.** Beijing, China
Model Development Intern (Python)
- Designed credit risk modeling strategies, and segmented clients by risk level using rolling default rate and aging analysis to forecast credit performance
- Conducted feature engineering (generation, aggregation, transformation) and selected key variables via WOE/IV, logistic regression, and coefficient analysis
- Evaluated model performance using KS, AR, Gini, AUC, ROC, confusion matrix, and PSI
- Developed Python-based credit scorecards to help bank reduce loan default risk

07/22 - 08/22 **PING AN TECHNOLOGY CO., LTD.** Shenzhen, China
Data Analyst Intern (SQL, Java)
- Configured database connections and Sqoop scripts to transform ODS into ADS using SQL; handled Hive configuration, HDFS uploads, LINKDO scheduling, and validation of scripts.
- Built dashboards with Tableau, Power BI, FineBI, and the company's proprietary BI software; suggested improvements and assessed its market potential
- Diagnosed root causes of low internal app usage, proposed targeted improvements, and consolidated findings in reports to team and supervisor, leading to higher app usage

PROJECT

06/24 - 06/24 **UNIVERSITY OF CALIFORNIA, SANTA BARBARA** Santa Barbara, CA
Advanced Mathematical Finance Course Project (Python)
- Constructed 10-stock minimum-variance portfolios, efficient frontiers, and capital market lines
- Analyzed historical portfolio performance, considering COVID and regulatory impact
- Developed hedging and rebalancing strategies

COMPUTATIONAL SKILLS / OTHER

Programming Languages: Python, R, MATLAB
Languages: English (fluent), Mandarin (native)
Activities: Chinese Chess (4th place, Beijing Junior Tournament)

SIYI ZHU

(347) 688-1528 // siyizhu@nyu.edu // linkedin.com/in/siyi--zhu

EDUCATION

Expected 12/26 **NEW YORK UNIVERSITY** New York, NY
The Courant Institute of Mathematical Sciences
M.S. in Mathematics in Finance
- ***Expected Coursework:*** computing in finance, financial securities and modeling, risk and portfolio management, stochastic calculus, asset pricing, derivative market, machine learning

09/20 - 12/24 **MOUNT HOLYOKE COLLEGE** South Hadley, MA
B.A. in Mathematics and Economics
- ***Coursework:*** calculus, linear algebra, discrete mathematics, probability, real analysis, stochastic processes, number theory, abstract algebra, data structures (Java), statistics (R)

EXPERIENCE

06/24 – 08/24 **CHINA SECURITIES** Beijing, China
Quantitative Research Intern (Python)
- Developed volatility-linked position adjustment model using Python to optimize pricing, risk management, and performance of financial instruments and portfolios
- Calculated daily return lines for backtesting beta trend control strategies using CSI 500 and CSI 1,000 datasets with Python, assessing impact of various market conditions on performance
- Analyzed protective put strategies for hedging downside risk in futures positions by purchasing put options, ensuring delta-neutral coverage to mitigate potential losses
- Designed hybrid quantitative trading strategy using Lasso Regression Model in Python, achieving 3.73% excess return during downturns and reducing market risk exposure by 31.75%

05/24 - 06/24 **MOUNT HOLYOKE COLLEGE** South Hadley, MA
Research Assistant (Netlogo, Python)
- Investigated spin-coated polymer films with NetLogo using modified versions of Triangular Growth Model on outside-in growth and dynamic color changes to simulate polymer dynamics
- Designed Color-Index & Color-Front Model to visualize growth phases of triangular polymer structures with dynamic color changes, bond formation, and polymer aging over time
- Developed image-based statistics of polymer using network theory and ML algorithm

06/23 - 08/23 **CINDA SECURITIES** Beijing, China
Research Analyst Intern
- Authored comprehensive market research on energy storage converters and virtual power plants, energy transformation policy trends, risks and market size to support investment strategies
- Presented comparative analyses of Chinese photovoltaic inverter industry and energy storage installations across global markets, leveraging regression models to forecast future performance

PROJECTS

07/22 - 08/22 **BROWN UNIVERSITY** Providence, RI (Remote)
Research on Minimum Covering Circle (MATLAB)
- Investigated optimal solutions to minimum covering circle problem using MATLAB, focusing on enhanced outcomes through convex optimization and Lagrangian duality techniques

COMPUTATIONAL SKILLS / OTHER

Programming Languages: Python, Java, R, C/C++, Stata, LaTex, MATLAB, Bloomberg
Languages: English (fluent), Mandarin (native), French (basic), Korean (basic)
Certifications/Baruch Pre-MFE Programs: Advanced Calculus with Financial Engineering Applications (Distinction), Probability Theory for Financial Applications, Bloomberg Market Concepts & Finance Fundamentals
Activities: Teaching Assistant at Mount Holyoke College for Intro. to Proof Through Analysis, Mathematics & Statistics Department Liaison, Clarinet (Performance Level 1), Sailing (Assistant Coach Certificate), Ballet (RAD 6)

THE MOST ASTUTE. THE MOST CAPABLE. THE MOST PREPARED.

OUR STUDENTS ARE READY TO GET WORK.

Connect with the students directly, or contact MathFin's Office of Career Services at:
cims-mathfin-careerservices@nyu.edu