RUNTIAN (LARRY) LIANG

(646) 818-0448 // larry.liang@nyu.edu // linkedin.com/in/rtliang

EDUCATION

Expected 05/24 **NEW YORK UNIVERSITY** New York, NY
The Courant Institute of Mathematical Sciences
M.S. in Mathematics in Finance

- ***Recent Coursework:*** Black-Scholes formula and partial differential equation, Monte Carlo simulation, deep learning, stochastic calculus, portfolio optimization, risk management
- ***Forthcoming Coursework:*** dynamic asset pricing, advanced statistical inference and machine learning, time series and statistical arbitrage, algorithmic trading

09/19-05/23 **NEW YORK UNIVERSITY** New York, NY
College of Arts and Science
B.A. in Mathematics and Data Science

- ***Coursework:*** deep learning, linear algebra, probability and statistics, OOP in Java and Python, regression, random forest, numerical analysis, database management and analysis

EXPERIENCE

05/23 - 08/23 **CITIC SECURITIES** Shanghai, China
Quantitative Research Intern (Python, MySQL)

- Built backtest system using Backtrader package, with modules including data collection, data preprocessing, trading signal detection, data visualization and performance analysis
- Created multi-factor model that analyzed performance of fundamental and technical factors of CSI 1000 stocks' performance, which achieved Sharpe ratio of 1.43
- Constructed and managed database from over 800k research reports and data for more than 5k A-Share stocks.

02/21 - 05/21 **HAITONG SECURITIES INNOVATIONAL CAPITAL** Shanghai, China
Private Equity Analyst Intern

- Collaborated on writing industry/company analysis, and provided investment suggestions
- Interviewed experts to develop industrial insight, which facilitated decision making process
- Researched supply chain for several fields (e.g., chips, renewable energy, SaaS systems), and produced reports about competitive patterns within them

PROJECTS

NEW YORK UNIVERSITY

01/23 - 05/23 **Pricing an Exotic Option using Hull-White Model (Python)** New York, NY

- Derived dynamics of Nikkei index, forward rate, and risk free rate using past data and calibrated Nelson-Siegel Model and Hull-White Model
- Retrieved past data of variables(e.g., Nikkei-225 index, US 10Y Treasury) using NASDAQ API
- Built automated program that visualizes predictions of future data (e.g., Nikkei index) and returns option price while inputs are provided (e.g., relative strike prices, maturity date, settlement date)

04/22 - 07/22 **Bitcoin Price Prediction based on Blockchain Information (Python)** New York, NY

- Conducted research by reading 20+ papers and replicating algorithms; made presentations about insights and results, while conducting peer reviews
- Cleaned all kinds of recent 13 years' bitcoin related data and employed Bayesian neural network with 10 independent variables on block chain information to predict bitcoin price

01/22 - 05/22 **Movie Rating Prediction Project (Python, PyTorch)** New York, NY

- Fitted different ML models (e.g., linear regression, clustering) to predict movie ratings with a dataset including 400k users and 5k movies; obtained RMSE of 1.274 with lasso regression

COMPUTATIONAL SKILLS / OTHER

Programming Languages: Python (Numpy, Scipy, Pandas, Pytorch), SQL, Java
Languages: Mandarin (native); English (fluent)