SHUNWEI (DAVID) DU

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EDUCATION

Expected 12/25 **NEW YORK UNIVERSITY** New York, NY
The Courant Institute of Mathematical Sciences
M.S. in Mathematics in Finance
- ***Expected Coursework:*** stochastic calculus, time series analysis, scientific computing, risk and portfolio management, dynamic asset pricing, algorithmic trading, equity derivatives

09/20 - 05/24 **NEW YORK UNIVERSITY** New York, NY
B.A. With Honors in Computer Science and Mathematics
- ***Coursework:*** linear algebra, probability & statistics, ordinary differential equations, real analysis, numerical analysis, data structures, algorithms, machine learning, data management and analysis
- ***Honors:*** Dean's List (4 years), Cum Laude

EXPERIENCE

06/24 - 08/24 **QILIN INVESTMENT** Shanghai, China
(Hedge fund with $4B AUM)
Quantitative Research Intern (Python)
- Developed daily-balanced timing signals using MSCI Crowding Models for Barra risk factors, supported by technical indicators, resulting in Sharpe ratio increase for strategy of 12.57%
- Created alpha factors with alternative data and sentiment analysis from research reports and market news, achieving annualized return of 10.23% and information ratio of 1.46
- Built stock screeners to filter out underperforming stocks within strategies by analyzing Level 2 data (e.g., price, order book information), improving overall Sharpe ratio by 14.28%

06/23 - 08/23 **LONGQI INVESTMENT** Hangzhou, China
(Asset management firm with $2B AUM)
Quantitative Research Intern (Python)
- Created alpha factors using 1-minute intraday stock data and regression analysis, each delivering >8% annual return with information ratio >1.2
- Developed strategy based on semiannual equity index rebalancing, incorporating market cap and trading volume criteria; achieved 7.73% annualized excess return and Sharpe ratio of 1.96
- Designed event-driven strategy using alternative data for due diligence on listed companies; achieved 16.31% annualized excess return and Sharpe ratio of 1.58

PROJECTS

08/23 - Present **NEW YORK UNIVERSITY** New York, NY
CS Honors Thesis: Evaluating Vision and Language Models for Radiology (Python)
- Established comprehensive evaluation baseline incorporating BERT-similarity scores, prompt-generated GPT evaluations, and Chexpert labeling
- Conducted comparative analysis of Med-Flamingo, GPT-4/4o, and Gemini, providing insights into performance of commercial and open-source models

01/23 - 05/23 **Fit-finder Application Development (Python, HTML, CSS)**
- Designed and developed Fit-finder web application which provided outfit recommendations based on restaurant dress codes
- Used PyTorch, Torchvision, and FashionCLIP for classification of garment data from Farfetch; developed search engine for users to specify and receive outfit recommendations

10/22 - 12/22 **Robot Hand Fingertip Positions Prediction with RGBD Images (Python)**
- Trained convolutional neural network model to identify robot hands' fingertip movements with RGB+Depth images; achieved mean-squared loss of <0.003 in fingertip predictions

COMPUTATIONAL SKILLS / OTHER

Programming Languages: Python, Java, C/C++, SQL, MATLAB, HTML, CSS, Shell Scripting
Languages: English (fluent), Mandarin (native)
Activities: President of NYU Zen Buddhism Club, Web Design Grader at NYU