JASARIN VORAWATHANABUNCHA

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EDUCATION

CARNEGIE MELLON UNIVERSITY, TEPPER SCHOOL OF BUSINESS — Pittsburgh, PA
Master of Science in Computational Finance – MSCF — ***GRE Quant: 168/170*** — 12/20

- An interdisciplinary program including finance, mathematics, statistics, programming and communications

CHULALONGKORN UNIVERSITY — Bangkok, Thailand
Bachelor's in Business Administration (Banking and Finance) — ***GPA: 3.98/4.00*** — 6/19

- Rank: 1/118, Finance major student committee, Head programmer of stock trading games, University chorus pianist

COURSEWORK/SKILLS

- **Finance and Economics**: Macroeconomic Theory, Derivatives, Fixed Income, Investments, Credit Modelling, Financial Engineering with MATLAB, Multi-period Asset Pricing*
- **Mathematics**: Linear Algebra and Multivariable Calculus (Teaching Assistant), Stochastic Calculus*
- **Statistics**: Inferential Statistics, Time-Series Econometrics, Financial Data Science*, Machine Learning*
- **Programming**: Python, C++, MATLAB, VBA, Financial Computing*

**denotes current MSCF coursework*

EXPERIENCE

WORLDQUANT, LLC — Bangkok, Thailand
Part-Time VRC Research Consultant — 8/18 – 7/19

- **Financial Modelling**: Created trading strategies (alphas) for US, EU, and Asian equities using WebSim platform with an average OS-over-IS Sharpe of 1.48 using price-volume, fundamental, and sentiment datasets

Quantitative Research Intern — 5/18 – 8/18

- **Financial Modelling**: Low- to mid-frequency US Equity market-neutral alpha research using Python
- **Quantitative Methods:** Implemented Kalman Filter, Fast Fourier Transform, Principal Component Analysis, Logistics Regression, and GARCH
- **Programming**: Developed Python-based Alphas' parameter optimizers with stats module and genetic algorithm

RESEARCH/PROJECTS

Trading on Implied Risk-Neutral Densities — 8/19

- Estimated risk-neutral density of SPY using SPX prices
- Found that the densities exhibit spikes at out-of-the-money and anti-leverage effect at times
- Proposed potential trading strategies and applications to estimating VaR

Sensitivity Analysis and Intuitions on Edible Wedding-Cake Structured Notes — 11/18 – 12/18

- Modelled a new financial derivative based on existing Wedding Cake Option with adaptive pay-offs
- Priced instrument on Hestonian underlying using Monte-Carlo with antithetic variate method in MATLAB
- Developed GUI in MATLAB for computing and visualizing prices and the Greeks
- Offered implications and intuitions on behavior and the Greeks

Intra-Day Market Data Scraping — 11/18 – 12/18

- Scraped and stored large intraday market data into a MySQL database using Python-based scripts
- Maintained Google Cloud instances to automate data collecting process for Chulalongkorn university financial lab
- Analyzed data for potential price-volume trading strategies

ADDITIONAL INFORMATION

- Certifications: QuantNet C++ for Financial Engineering Certificate (with Distinction)
- Interests: Classical Piano, Contemporary Art
- Leadership: Team leader in national economic competition (Rank: 2/224)
- Volunteer Activities: Teaching assistant to piano masterclasses
- Languages: Thai (Native), English (IELTS: 8.0/9.0)