JASARIN VORAWATHANABUNCHA

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EXPERIENCE

Siam Commercial Bank Bangkok, Thailand
Senior Data Scientist, AVP *1/21 –*

- Modelled dynamic risk scorings for Up and UpLoan debt collection to reduce credit losses (acquired by CardX)
- Reduced credit card point balance liability by 60MM THB by implementing point redemption scheme optimisation framework behind PointX app on over 30,000 merchants and products
- Constructed customer graph network database using various derived relationship from large unstructured data and engineered graph-based features and learning algorithms

WorldQuant Predictive Remote Office
Part-Time Researcher *6/20 – 11/20*

- Developed machine learning models to identify anti-COVID activity in drug molecules, improving accuracy by 46%

WorldQuant, LLC Bangkok, Thailand
Part-Time Consultant *8/18 – 7/19*

- Developed 70+ algorithmic long-short trading signals on US, EU, and Asian equities
- Achieved Out-of-Sample over In-Sample Sharpe of 1.48 using price-volume, fundamental, and sentiment datasets

Quantitative Research Intern *5/18 – 8/18*

- Low- to mid-frequency US Equity market-neutral alpha research using Python and C++
- Developed genetic algorithm-based parameter optimisers with statistics report module for trading signals
- Implemented Kalman Filters, Fast Fourier Transform, Principal Component Analysis, and GARCH estimations
- Coordinated weekly lectures on trading signal to WorldQuant's International Quant Championship participants

EDUCATION

Carnegie Mellon University Pittsburgh, PA
MS in Computational Finance, 4.14/4.33 (All A/A+) *08/19 – 01/20*

- Economics Research Club, Quantitative Finance Club, Data Science Club.

Chulalongkorn University Bangkok, Thailand
BBA in Banking and Finance, 3.98/4.00 (Rank 1/118—Gold Medal) *08/15 – 05/19*

- Finance major committee, University chorus pianist

PROJECTS

Sampling from Empirical Financial Correlation Matrix Densities using GAN *2/20*

- Discovered a novel method in sampling high-dimensional (60+) empirical densities for Monte Carlo simulations using deep convolutional generative adversarial network in generating equity returns correlation matrices
- The neural network method is 2.9 times faster than traditional bootstrap sampling and improved the baseline accuracy by 17.4 percentage points

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

- Modelled a new short-volatility financial derivative by incorporating adaptive pay-offs to Wedding Cake options to protect the issuer from market parameter mis-calibrations
- Priced the instrument on Hestonian underlying using Monte-Carlo with antithetic variate method.
- Developed a GUI in MATLAB for computing and visualising prices and the Greeks
- Offered implications and intuitions on price behaviour and the Greeks

ADDITIONAL INFORMATION

Awards:

- Gold Medal Honour (highest overall GPA), Academic Excellence Awards (highest GPA) in every year
- Sugree Charoensook International Music Competition 2022, Gold Medal
- Bangkok International Performing Arts Piano Competition 2021, Gold Medal

Leadership:

- Team leader in 9th Petch Yod Mongkut Economics Competition, Silver Medal
- Chulalongkorn Finance Major Committee—Organised stock trading simulation game for high-schoolers

Skills/Interests:

- Python, Sparks, C++, MATLAB, VBA, Excel
- Corporate finance, Financial economics, Portfolio optimisation, Algorithmic trading
- Equestrian, Piano, Harp, Contemporary art, Algorithmic art