Jasarin Vorawathanabuncha

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Experience

Data Scientist
Siam Commercial Bank
1/21 –

- Modelling dynamic risk scoring for debt collection strategy optimisation.
- Initiated credit card point redemption scheme optimisation framework using dynamic pricing algorithms based on Bayesian models and simulations on over 30,000 products.
- Constructed customer graph database from large unstructured data using various derived relationship and engineered graph-based features and learning algorithms.

Part-Time Researcher
WorldQuant Predictive
6/20 – 11/20

- Developed machine learning models to identify anti-viral activity of chemical molecules as a SARS-CoV-2 phenotypic screening to filter and repurpose drug candidate treatments.
- The tree-based model achieved 73% AUROC in the highly imbalanced dataset (20:1).

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

- Created 70+ algorithmic long-short trading strategies (alphas) on US, EU, and Asian equities.
- Achieved average Out-of-Sample over In-Sample Sharpe of 1.48 using price-volume, fundamental, and sentiment datasets

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

- Low- to mid-frequency US Equity market-neutral alpha research using Python and C++.
- Implemented Kalman Filter, Fast Fourier Transform, Principal Component Analysis, Logistics Regression, and GARCH estimation in Python.
- Developed genetic algorithm-based parameter optimisers with statistics report module.
- Coordinated weekly lectures on alpha design techniques to WorldQuant's International Quant Championship 2018 participants.

Education

Carnegie Mellon University
MS in Computational Finance
08/19 – 12/20

- 4.14/4.33 GPA. (*All A/A+*).
- Economics Research Club, Quantitative Finance Club, Data Science Club.

Chulalongkorn University
BBA in Banking and Finance
08/15 – 05/19

- 3.98/4.00 GPA. *(Rank 1/118 – Gold Medal)* .
- Finance major committee, University chorus pianist.
- Academic Excellence Award in all four years
- Silver Medal in 2017 National Crown Diamond economic competition (Rank: 2/224), 4th place in Thailand 6th Mozart International Competition.

Mini Projects

Sampling from Empirical Financial Correlation Matrix Densities Using GAN
2/20

- Applied Deep Convolutional Generative Adversarial Network in generating equity returns correlation matrices for Monte Carlo simulations.
- The overfitted network can be used to sample from high-dimensional (60+) empirical densities 2.9 times faster than traditional bootstrap sampling.
- Improved the baseline mis-classification rate by 17.4 percentage points.

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

- Modelled a new financial derivative by adding adaptive payoffs to Wedding Cake Option.
- Priced the instrument on Hestonian underlying using Monte Carlo with antithetic variate.
- Designed a GUI in MATLAB for computing and visualising prices and the Greeks.
- Offered implications and intuitions on behaviour of the Greeks.

Interests

- Equestrian show jumping, Dressage
- Mid 20th-century and contemporary classical piano, Contemporary art, Algorithmic art.
- Corporate finance, Financial economics, Portfolio optimisation.
- Probabilistic programming, Bayesian modelling.

1 Feb 2022