# JASARIN VORAWATHANABUNCHA

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#### **EXPERIENCE**

#### Siam Commercial Bank

Bangkok, Thailand

Senior Data Scientist, AVP

1/21 -

- Lead the financial advisory team in developing new end-to-end asset allocation models based on statistical methods —improving the current discretionary model's CAGR by **5%pts** in backtest with reduced turnover
- Develops an explainable AI model that dynamically adjusts asset allocations based on economic cycles, offering transparent, human-readable economic rationale for its allocation decisions
- 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

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

WorldQuant, LLC
Part-Time Consultant

8/18 - 7/19

- Developed 70+ algorithmic long-short trading signals across 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 network is 2.9x faster than traditional bootstrap sampling and with 17.4%pts improvement in accuracy

#### **BEYOND MY DAY JOB**

## Awards:

- Gold Medal Honour for highest overall GPA, Academic Excellence Awards for highest GPA in each year
- Trinity Awards Thailand 2024, Highest scorer in Music Theory
- 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