

YITONG WU

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EDUCATION

MSc Financial Technology, Nanyang Technology University, Singapore

- Cumulative GPA: 4.20/5
- Core Modules: Machine Learning in Finance, Finance and Risk Management, Quantitative Methods in Finance, Anti-Financial Crime, Python For Data Analysis

BSc Mathematics with Economics, University College London, United Kingdom

- Qualification Awarded: Upper Second-Class Honours
- Core Modules: Linear Algebra, Analysis, Financial Mathematics, Economics, Financial Economics

WORK EXPERIENCE

Research Assistant, National University of Singapore, Singapore

Dec 2023-Dec 2024

- Research and Collaboration: Conducted in-depth analysis of key papers on *Catalytic prior distributions with application to generalized linear models* and *Bayesian inference on Cox regression models using catalytic prior distributions*. Implementing R methodologies for future applications, while actively engaging in discussions and brainstorming sessions with peers.
- R Package Development: Developing an R package based on advanced Bayesian methodologies for public release, and co-authoring a paper with my supervisor. Optimising code to significantly enhance efficiency and processing speed.
- Innovative Solution: Devised and implemented a method for dealing with GLM binomial distributions using the `rstan` package, achieving a 5-fold decrease in the logarithmic error of prediction.

Data Engineer, Oversea-Chinese Banking Corporation, Singapore

Jul 2022-Aug 2023

- Automated Trade Reconciliation: Revolutionised Malaysia's trade reconciliation by developing and implementing Trade Automation Smart Process Robot, drastically reducing processing time from over 40 minutes to less than 1 minute per trade. Managed error-free handling of 1500+ daily trades.
- Developed Python-based Automation Systems: Designed and implemented systems for efficient data extraction, comparison, and reporting across diverse document formats. Led transition of on-premises systems to Jenkins, introducing PyTest for automated Python script testing with 80% code coverage.
- Collaborated with Internal Teams: Collaborated closely with internal teams to comprehensively understand data processing needs, documenting requirements to align with project objectives.
- Intern Onboarding: Onboarded countless interns in different projects or teams for higher productivity.

Data Scientist, Singapore Telecommunications Limited, Singapore

Jan 2022-Jun 2022

- Clustered and labelled ~100,000 customers with PySpark for implementing a new product structure.
- Analysed customer churn behaviour by using Lifeline and provided strategic insights to management.

University Python Mentor, UCL, United Kindom

Oct 2019-Jun 2020

- Prepared coding lectures and programs for less-privileged children.

RELATED PROJECTS AND EXPERIENCES

Equity Price Analytics, NTU, Singapore

Jan 2022-Feb 2022

- Developed coding structures to generate long-short equity pairs for Pairs Trading strategy by using Simple and Exponential Moving Averages.

NLP in Toxic Comment Classification, NTU, Singapore

Oct 2021-Feb 2022

- Remodelled machine learning methods, such as LSTM, to enhance efficiency and accuracy in toxic comment classification compared to Logistic regression models.

Car Rental Blockchain Smart Contract, NTU, Singapore

Dec 2021-Jan 2022

- Designed a smart contract using Solidity to execute the daily functions of car rental companies.

Machine Learning in Human Facial Expression Recognition, NTU, Singapore

Jul 2021-Oct 2021

- Built facial recognition models using PyTorch and scikit-learn, achieving 76% accuracy.

Cryptography Simulation Project, UCL, UK

May 2019-Jun 2019

- Simulated and presented Diffie-Hellman key exchange methods for encryption and decryption.

SKILL & INTERESTS

IT Skills:

- Major: Python (PyTorch, Pandas, PyTest, etc), R (stats, rstan, testthat, devtools, etc), SQL
- Others: Git, AWS, Jenkins, Jira, Bitbucket, Confluence, UML, Cucumber, HTML, CSS, JavaScript

Language: Mandarin (Native), English (Fluent), Japanese (JLPT N2)

Interests: Sudoku, Bodybuilding, Bread Making, Hiking, Travelling (UAE, Sri Lanka, Maldives, etc)