

Theo Obadiah Teguh

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EDUCATION

University of Hong Kong

Incoming Master of Statistics

Expected Graduation 2026

University of Hong Kong

Bachelor of Economics and Finance, 2nd Major in Computer Science

Sep 2021 - May 2025

Hong Kong

- **SGPA:** 3.73/4.30 (Latest), **CGPA:** 3.66/4.30 (First Class Honors, Expected)
- **Academic Awards:** Dean's Honors List (2021-2024), HKU Full-Tuition Entrance Scholarship (2021-2025), Chan Tat Chee Memorial Education Abroad Scholarship (2023-2024)
- **Coursework:** Software Engineering, Data Structures & Algorithms, Relational Databases, Computer Hardware & Operating Systems, Computer Networks, Object-Oriented Programming, Functional Programming, Mathematical Finance, Advanced Econometrics, Statistical Learning, Artificial Intelligence, Linear Algebra

PROFESSIONAL EXPERIENCE

Data Scientist

Oxbridge Economics, LLC

Jul 2024 - Dec 2024

Hong Kong

- Designed and implemented a stratified sampling algorithm with **scikit-learn**, **Pandas**, and **NumPy** based on a 56 GB data warehouse, decreasing error by 59% relative to prior benchmarks. ([more details](#))
- Conducted **feature selection** of predictive covariates with over 10 gradient-boosted trees (XGBoost) models, and conducted cross-validation and Bayesian hyperparameter tuning.
- Spearheaded **research on optimization** of the sampling algorithm with tools such as the simulated annealing Monte Carlo method and cross-entropy or Kullback-Leibler divergence.

DevOps Engineer

Vancouver School of Economics, UBC

Mar 2024 - Apr 2024

Vancouver, Canada

- Reduced **software deployment** time by 50% via recursive synchronization of dependencies. ([more details](#))
- Automated **CI/CD** with **Bash** and **GitLab CI** mitigating risk of error in a project of 30+ developers.

Data Engineer

Faculty of Business and Economics, HKU

Jun 2023 - Sep 2023

Hong Kong

- Developed an automated **ETL pipeline** with libraries including **Pandas**, **NumPy**, and **ElementTree** to process a purchased 35 GB bond holdings **XML** data package from the **Morningstar SFTP** system. ([more details](#))
- Obtained a 95% overall data pipeline speed improvement, reaching top download speeds of 13 MBps.
- Administered and hosted an **AWS RDS MySQL** instance to load the parsed data.

ACHIEVEMENTS AND PROJECTS

Citadel Trading Challenge - 1st Place ([more details](#))

Oct 2024

- Brainstormed and solved a complex mathematical trading simulation game, achieving 1st place amongst 30 select participants across 6 teams from the University of Hong Kong.

QRT Data Challenge - Top 50% Worldwide ([more details](#))

Oct 2024

- Trained a multilayer perceptron neural network and a gradient-boosted trees classifier to predict football game outcomes. Attained accuracy of up to 50% and competed against 800+ contestants worldwide.

Glassdoor Sentiment Analysis with BERT-Twitter ([more details](#))

Dec 2024

- Set up development infrastructure and library dependencies on a virtual machine in a GPU farm provided by the HKU HPC Laboratory to run HuggingFace models on a 3.4+ million textual employer ratings from Glassdoor in a coursework project with Tower Research Capital fund managers.

BigTwo Card Game ([more details](#))

Dec 2024

- Designed a multiplayer card game supporting up to four users with Java. Gained a deeper understanding of threads, concurrency, synchronization, locks, network sockets, and GUI design utilizing Java Swing.

LEADERSHIP AND VOLUNTEERING

Teaching Assistant for COMP1117 & COMP2113/ENGG1340

Sep 2023 - Present

- Responded to Q&A forums on Python control statements, functions, data structures, recursions, and file I/O.
- Led tutorials on Linux and Bash, C and C++ programming, Git version control, and compilation with Makefiles.

Student Helper for Bridges International

Aug 2021 - Present

- Coordinated events for international students in HKU, HKUST, CUHK, and CityU as well as community outreach.

TECHNICAL SKILLS

- **Programming Languages** Python, R, C, C++, Java, Haskell, Bash, SQL
- **Data Science Frameworks** Pandas, scikit-learn, Hugging Face, ElementTree, Tidyverse
- **Cloud and Development** AWS (EC2, S3, RDS, Cloudfront, Route 53), Git, GitLab CI, GDB, Valgrind
- **Miscellaneous** Agile Development, CI/CD, Software Development Life Cycle, Bloomberg Terminal, LaTeX