

Welvin Bun

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EDUCATION

The University of Hong Kong

GPA: 3.94/4.3

Computer Science (First Class Honours)

Sept. 2018 - May 2022

- **Awards:** HKU Foundation Full Tuition Scholarship, HKU Engineering Dean's Honours List, Chung Chow Han Lan Memorial Scholarship 2020, VTech Scholarship 2021, HKMA-ICT Scholarship 2022.

EXPERIENCE

y-intercept

June 2022 - August 2022

Quantitative Developer Intern

Hong Kong

- **Removed 2 daily man hours for manual script-based reports generation** by building an all-in-one reporting system that includes multiple post-trade analysis reports such as execution slippage, trade reconciliation, and strategy risk monitor.
- **Built a new ETL pipeline for crypto market data for quantitative researchers and traders.** Standardized dataframe format that includes bar data, funding rate, borrowing rate, etc across multiple exchanges (FTX, Binance, OKEX). **Optimized daily build and download time** using parallelization.

HKU Computer Vision Group

Sept. 2021 - March. 2022

Student Research Assistant

Hong Kong

- **Worked on a C++ desktop application for spine deformity examination** that uses Kinect sensor and deep learning models for anatomical landmarks detection, used by medical partners in Hong Kong.

Morgan Stanley

June - August 2021

Technology Summer Analyst, Trading Risk Controls

Hong Kong

- **Reduced potential market impacts** by providing risk managers with a machine learning-based recommendation platform for releasing/rejecting high-touch orders.
- **Implemented an automated pipeline** that collects and processes terabytes of historical market orders data.
- **Built an Ensemble model** as classifier that given a new order, gives action recommendation based on past decisions made. Achieved 93% accuracy, 91% ROC-AUC score, and 95% F-1 score on a 3 months long test data.
- **Won the APAC regional intern coding competition** by building a self-playing Ultimate Tic-Tac-Toe AI bot on C++ using minimax algorithm with alpha-beta pruning and state caching.

Société Générale

June - August 2020

Data Science Intern

Hong Kong

- **Reduced time spent for daily market news data analysis by 90%** by developing a full-stack NLP application that extracts named entities, generates summaries, and analyses sentiments from market news articles.
- **Implemented various cluster analysis algorithms** on featurized market news articles.
- **Assisted risk managers to capture anomalous patterns in time-series market risks data** by developing a full-stack application with CNN classifier and synthetic training data.

PERSONAL PROJECTS

- **Trashtank** A computer vision-powered waste management system for an industry client in Hong Kong ([See more](#)).
- **SortIt** A sorting algorithms visualizer on the web to help understand different sorting techniques better ([See more](#)).
- **Fixels** A deep learning application to assist ophthalmologists in diagnosing diabetic retinopathy based on retinal images data of patients ([See more](#)).

ACHIEVEMENTS AND ADDITIONAL EXPERIENCES

- **Teaching Assistant, ENGG 1330** Led weekly discussions for 30 students on introductory Python concepts.
- **Teaching Assistant, COMP 3314 Machine Learning** Led biweekly tutorial discussions, developed problem sets, marked final examination of a 150-students class.
- **President, HKU Indonesian Association** - Organized events such as Indonesian cultural night and welcoming gathering for approx. 150 student members.

TECHNICAL SKILLS

- **Programming Languages** Python, C++/C, JavaScript, Typescript, Java, Haskell, SQL
- **Dev frameworks** React, Redux, Qt, NodeJS, MongoDB, Express, Flask, GraphQL, FastAPI, Docker, GHCi, KDB
- **Machine Learning** Tensorflow, Keras, PyTorch, Numpy, Pandas, scikit-learn