

Welvin Bun

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EDUCATION

The University of Hong Kong

GPA: 4.0/4.3

Bachelor of Engineering in Computer Science

Sept. 2018 - May 2022

- **Awards:** HKU Foundation Full Scholarship, VTech Scholarship 2021, HKU Engineering Dean's Honours List.
- **Courses (G: Graduate Level, T: Taught the course as a TA):** Advanced Topics in Data Science (G), Machine Learning (T), Applied Deep Learning, Natural Language Processing, Functional Programming.

The University of Toronto

GPA: 3.88/4.0

Visiting student, Computer Science

Jan. - June 2021

- **Courses:** Advanced Algorithms, Artificial Intelligence, Systems Programming, Probability and Statistics II.

EXPERIENCE

HKU Computer Vision Group

Sept. 2021 - Present

Student Research Assistant

Hong Kong

- **Working on a C++ desktop application for spine deformity examination** that uses Kinect sensor and deep learning models for anatomical landmarks detection, to be used by medical partners in Hong Kong.
- Supervisor: Dr. Kenneth Wong. Under the HKU Engineering Dean's fund for Research Exploration scheme.

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 petabytes of historical market orders data.
- **Built an Ensemble model** as base 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 test set consisting of 3 months' worth of data.

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.

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.
- **Champion, FinHack 2019** Won a 36-hour FinTech Hackathon in Hong Kong, amongst roughly 50 teams.
- **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, Gatsby, MongoDB, Express, Flask, GraphQL, FastAPI, Docker, GHCi
- **Machine Learning** Tensorflow, Keras, PyTorch, Numpy, Pandas, scikit-learn