Herbert Ilhan Tanujaya

✉ mail@herbert.id | 🏠 herbert.id | donjar

Education

National University of Singapore   *Singapore*

DOUBLE DEGREE STUDENT IN BACHELOR OF COMPUTING (COMPUTER SCIENCE) AND BACHELOR OF SCIENCE (MATHEMATICS)   *Aug 2015 - May 2020 (expected)*

- Current CAP: 4.58 out of 5 (3.67 out of 4)

Skills

Languages	Python, C++, Ruby, SQL, Scala, Bash, C, Java, Rust, R, Clojure, Go
Web	Ruby on Rails, HTML, HAML, CSS, SCSS, Javascript, Typescript, jQuery, React.js, Redux, Django, Flask, aiohttp
Mobile	iOS Development with Swift
Machine Learning	Scikit-Learn, Keras, Scalding

Experience

Jump Trading LLC   *Singapore*

QUANTITATIVE RESEARCH INTERN   *Jun 2018 - Aug 2018; Jul 2019 - Aug 2019*

- Compared different machine learning models: linear regression (with regularization), random forests, gradient boosted regression trees (GBRT), and recurrent neural networks (RNN), on financial market data.
- Researched and simulated the impact of trading signals for various markets.

Basis AI   *Singapore*

SOFTWARE ENGINEERING INTERN   *May 2019 - Jun 2019*

- Helped built the company's MVP web app using aiohttp in Python for backend, as well as React, Redux, and Typescript for frontend.
- Also interfaced with infrastructure tools such as Kubernetes and Helm.

Bloomberg LP   *London*

SOFTWARE ENGINEERING INTERN   *Aug 2018 - Dec 2018*

- Added a scalable backpressure system for the C++ core infrastructure that supports providing live financial data to all clients, involving various internal tools and well-known tools such as Redis.
- Implemented many command-line scripts in Python to automate internal tasks.

Twitter Inc.   *Singapore*

DATA SCIENCE INTERN   *May 2017 - Aug 2017*

- Implemented complex Scalding (MapReduce) jobs to categorize data of traffic coming to Twitter, splitting them based on various variables.
- Presented visualizations of these datasets (in Tableau) to the whole data science team as well as to marketing teams.

Garena Pte Ltd.   *Singapore*

SOFTWARE ENGINEERING INTERN   *May 2016 - Aug 2016*

- Established a data aggregation system for Garena's real-time data to reduce time and memory usage of users' queries.
- Developed an API to assist programmers in obtaining results from the data aggregation system.

Projects

Jasmine: Chinese Learning App (https://github.com/jasmine-team/Jasmine)

iOS DEVELOPER   *Feb 2017 - May 2017*

- In a team of four, developed and launched a gamified Chinese learning application using Swift 3.
- Worked on the base game engine as well as 2 minigames that were extended from the game engine.

Extracurricular Activities

NUS Hackers (https://nushackers.org)   *NUS, Singapore*

CORETEAM MEMBER   *Dec 2016 - Present*

- Hosted weekly technical talks to foster the hacker culture in NUS.
- Played a major part in conducting Hack&Roll 2018 and 2019, the largest student-run hackathon in Singapore.

Teaching   *NUS, Singapore*

- Appointed as the head teaching assistant for CS3217, an advanced software engineering class, in which I helped shape the assignments, graded projects and gave feedback to students.
- Designed a one year curriculum for learning Ruby on Rails, and used them to mentor beginners. In a year, they progressed from not knowing how to code to successfully building a product.

Awards

International Mathematical Olympiad   *South Africa and Thailand*

BRONZE MEDALIST   *2014, 2015*

- Won two bronze medals in the International Mathematical Olympiad, the most prestigious high school mathematical competition.