# Herbert Ilhan Tanujaya

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**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: 4.54 out of 5 (3.64 out of 4)

Skills\_

**General** Python, C++, Ruby, SQL, Bash, C, Java, Rust, R

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

**Experience** 

Jump Trading LLC Singapore

Quantitative Research Intern Jun 2018 - Aug 2018; Jul 2019 - Aug 2018

• 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.