

Tiu Wee Han

COMPUTER SCIENCE STUDENT

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Skills

- **Programming Languages:** Golang • Java • TypeScript • Python • Ruby • C++ • C • `sh` • SQL
- **Tools:** Linux • Docker • Kubernetes • AWS • GCP • Nginx • Jenkins • React • Redux • GraphQL • Angular • Ruby on Rails • Git • `TeX`
- **Certifications:** Associate Cloud Engineer (Google Cloud Platform), Certified Cloud Practitioner (Amazon Web Services)

Education

National University of Singapore (NUS)

Double Degree in Computing (Computer Science) and Science (Applied Mathematics)

Singapore

Aug. 2018 - Present

- **Cumulative CAP:** 4.96 / 5.0 (First Class Honors)
- **Honors & Awards:** Dean's List Award (Fall '19, Spring '20), President of CVWO

Work Experience

Amazon Web Services (AWS)

Cloud Architect

Singapore

Aug. 2020 - Present

- Tasked to design and build real-world solutions for clients using AWS cloud services.

Shopee

Platform Engineer, Relational Database System (RDS) Team

Singapore

Jun. 2020 - Aug. 2020

- Designed and developed a distributed solution for performing physical backups and restores on RDS MySQL clusters using XtraBackup engine. Enhancements include parallelised operations, failover and rollback mechanisms, data compression and checksum verification.
- Implemented an S3 Server with MinIO and Docker for streaming and storing database backups remotely.
- Designed and implemented an API Gateway for managing and killing database connections to RDS MySQL clusters and instances.

Computing for Voluntary Welfare Organisations (CVWO)

Team Lead (2020), Software & DevOps Engineer (2019)

Singapore

May. 2019 - Aug. 2020

- Led a team of 8 developers to work on 2 projects in 2020 – Senior Activities Centre / Neighborhood Links (SACNL) and GIC Sparks.
- SACNL is a workflow management system used by 12 elderly care centres across Singapore to serve thousands of old folks everyday. We refactored the existing Ruby on Rails application into an API backend server and developed a new frontend in React-Redux.
- GIC Sparks is a progressive web app developed for the GIC Sparks & Smiles Program. We made substantial improvements to the UX and implemented new features such as cohort registration, CSV imports/exports and PDF reports.

Cancer Science Institute (CSI)

Data Analyst

Singapore

Jan. 2019 - May. 2019

- Developed extensible command line tools for working with NSCC supercomputers to extract meaningful results from terabytes of raw genomic data. Results were used to profile algorithms that identify cancer-causing mutations based on cost, speed and accuracy.

Projects

TEAMMATES

Senior Developer, Area Lead (DevOps)

Singapore

Dec. 2019 - Present

- TEAMMATES is an online peer evaluation system with more than 500,000 users from over 2,000 educational institutions.
- Restructured codebase (Angular-Java-Google App Engine) to improve code quality, maintainability and testability.

Netlify CMS

Contributor

Singapore

Jan. 2020 - Jun. 2020

- Netlify CMS is an open source headless git-based content management system (CMS) for managing static sites.
- Refactored codebase (React-Redux-Typescript) to include support for multiple languages and improved documentation.

Extracurricular Activity

Computing for Voluntary Welfare Organisations (CVWO)

President

Singapore

Sep. 2019 - Present

- CVWO is a student club in NUS that develops IT systems to help our partner VWOs serve the community more effectively.
- Responsibilities include managing live production systems, liaising with clients and overseeing recruitment and publicity efforts.

National University of Singapore (NUS)

Teaching Assistant

Singapore

Aug. 2019 - May. 2020

- **CS1101S** Programming Methodology (Fall '19) – Student rating of 4.8/5.0.
- **CS2040S** Data Structures and Algorithms (Spring '20) – Student rating of 4.8/5.0 – Head Teaching Assistant.

NUS Hackers

Coreteam Member

Singapore

Dec. 2018 - Present

- NUS Hackers is a student-run organization committed to the spread of hacker culture and free, open source software.
- Organized events such as Friday Hacks (a weekly tech meetup) and Hack & Roll (the largest student-run hackathon in Singapore).