

HONG SHAO YI

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[Portfolio Site](#) | [LinkedIn](#) | [GitHub](#)

EDUCATION

National University of Singapore **Aug 2018 - May 2022**
Bachelor of Computing (Honours) in Computer Science, Highest Distinction

- Undertook CP4101 dissertation on performance evaluation of parallel workloads on modern virtualization technologies in single node and cluster Linux environments - A+
- Notable modules taken:
 - CS3211 Parallel and Concurrent Programming (in C++, Rust, & Golang) - A
 - YSC4231 Parallel, Concurrent and Distributed Programming (in Scala/Java) - A
 - CS3219 Software Engineering Principles & Patterns - A+

WORK EXPERIENCE

Technical & Product Lead **Dec 2021 – Current**
Out Of The Box Education

- Responsible for the technical direction of the distributed system's architecture and stack
- Led team of 5 in an agile environment to develop frontend and backend Typescript & Golang microservices
- Designed the system's infrastructure, relational database schema, and continuous deployment strategy using AWS and Kubernetes from scratch

Teaching Assistant **Aug 2020 – May 2022**
National University of Singapore

- Organised a peer-led module following MIT's 6.824 Distributed Systems syllabus, covering distributed technologies such as MapReduce, Spark, and NoSQL databases
- Taught, facilitated and evaluated assignments & tutorials for (1) CS2103T Software Engineering, (2) CS4218 Software Testing, (3) IT5007 Software Engineering on Application Architecture, and (4) CS3219 Software Engineering Principles and Patterns
 - Played a part in mentoring microservices-based final projects with emphasis on ensuring consistency, scalability and concurrency of the distributed system, designing weekly tutorials, and incorporating Domain Driven Design in CS3219

Co-founder - Technical Lead **May 2019 – Dec 2021**
Challo

- Led an agile team of 8 in developing Challo, a prospective web platform that won the NUS Enterprise NUS Alumni Start-up Catalyst award and 2nd runner up for CS3217 in the 18th School of Computing Term Project Showcase (STePS)
- Designed and developed its software architecture system, database design, and DevOps infrastructure
- Organised workshops to teach new developers basics of web development
- Performed code and design reviews, as well as tests across the testing pyramid

Backend Engineer Intern **May 2021 – Aug 2021**
Shopee, Common Shared Services Server

- Built a static analysis and data visualisation tool to detect and visualize dependencies amongst microservices, middlewares and infrastructure from code

Freelance Web Developer**May 2021 – Aug 2021**

- Developed Universal Cold Logistic Properties' site from a given Figma design package

Software Engineer**Aug 2020 - Dec 2020****National University of Singapore, Anonymously-Email**

- Employed AWS Lambda and Elastic Beanstalk to deploy a serverless application that enables instructors to receive feedback via a system-generated anonymous email

Full Stack Software Engineering Intern**May 2020 - Jul 2020****Glints Intern Pte Ltd**

- Developed mobile-responsive frontend features in an agile environment for the Glints job portal site, notably:
 - Revamped user onboarding flow to increase profile completion rate by 40%
 - Revamped Glints VIP landing page to increase VIP application rate by 100%
- Implemented localisation & translation of Employers site in Taiwan domain, thereby opening up Glints to the Taiwan Marketplace
- Employed Google Tag Manager tags and Amplitude events to track user events
- Designed and wrote end-to-end tests for frontend interface with UI-licious to increase coverage by 30%

PROJECTS**Product Owner and Developer****Jul 2020 – Jul 2021****Project Morphine 1B (Mobile App Team), NUS MedTech**

- Led team of 4 to design and develop a React Native mobile application
- Introduced and facilitated Scrum workflow in development team and managed its product vision, roadmap and backlog

VOLUNTEER & CO-CURRICULAR ACTIVITIES**National University of Singapore****Jan 2018 – Jul 2021**

- Project Director for NUS MedTech
- Technology Associate for Developer Student Club NUS
- Developer for OscarBot, a Telegram bot written in Python, serving as an anonymous chat platform for various events in Residential College 4

SKILLS

- Java, Scala, Golang, C++, Python, Bash, Swift, Typescript, HTML, CSS, and R
- React, Redux, Next.js, JavaFx, SwiftUI and Express
- UI-licious, Junit, and TestFx
- Ansible, Kubernetes, Docker, Singularity, Vagrant, Nginx, Hadoop, Spark, PostgreSQL, MySQL, Redis, gRPC, Linux
- Amazon Web Services: EKS, EBS, EC2, Lambda
- Travis, Google Tag Manager, Amplitude, Lokalise, JIRA, Wordpress

AWARDS & ACHIEVEMENTS

- Wee Cho Yaw Future Leaders Award (NUS Donated Scholarship), 2018 - 2022