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About Me

I am a builder at heart. I love building software that can make real impact at scale. The mere idea of being able to build something huge with my own bare hands, by writing code, has always fascinated me since the first time I was introduced to software engineering. That was what led me to this path and what has kept me going. As a builder, I enjoy exploring and learning new technologies and building things with it. I believe that the best way to learn something is by getting your hands dirty with them. Thus, I like to spend some of my free time building some side projects just for the sake of learning and for the joy of seeing what you built work.

Recently, I have a newfound love for designing and building systems and infrastructures in the cloud, which started when I was given a chance to design the architecture and build the infrastructure using Terraform and AWS for a web app I built during my most recent internship. As a result, this has led me to my ongoing learning and exploration to the realms of system design, and consequently to distributed systems as well.

Internship Objectives

I look forward to contributing to as many phases of the whole end-to-end process of software and product development as possible, starting from designing the system, writing code, up until deployment and eventually scaling from zero to millions of users. I hope to contribute to driving the growth of a rapidly growing start-up and be able to experience and solve the challenges that comes with scaling it. All in all, I wish to enhance my technical and system design skills and gain experience in building and scaling a start-up.

Experience

I have experience working as a software engineer at two start-ups so far. My most recent internship was with Trustana, a Singaporean start-up in the B2B E-commerce industry that simplifies cross-border trade for businesses. Initially, I was hired as a frontend engineer, and was involved in improving their main web app and building a new marketing site. But nearing the end of my time there, I took the initiative to do some work which was out of my scope, which is designing the architecture and creating the infrastructure for a new web app that we were launching.

Prior to Trustana, I interned at ErudiFi, a series A start-up and an alumnus of Y Combinator that democratizes access to financing for higher education. It was here that I first felt that my work really made a real impact on people. At ErudiFi, I was involved in building a new iteration of their mobile app from scratch using React Native and Typescript, which we managed to finish and deploy to production before my time there ended.

How I Can Contribute

I have experience in Frontend, Backend, Mobile development, and Infrastructure through both my internship experiences and projects. Additionally, I am currently reading *Designing Data-Intensive Applications* by Martin Kleppmann, which will equip me with more knowledge on how to design and scale systems. Having learned and worked with all these different parts, I am now more well equipped to tackle engineering problems in many different aspects of software development, and hence I can contribute to a wide spectrum of responsibilities.

These experiences have also led me to be more adaptable, as I'm able to pick up new things, in particular technologies, quicker now. During my previous internship at Trustana, it took me only a week to learn Terraform and then use it to create the cloud infrastructures needed for deployment of our new app. Along with it, I had to learn new networking concepts such as virtual private cloud, public and private subnets, NAT gateways, and others to understand what I was dealing with.

Education

Aug 2020 - Present	**National University of Singapore (NUS)** *Bachelor of Computing (Honours) in Computer Science* *(Course details in Appendix A)* • GPA: 4.40 / 5.00 • Expected Date of Graduation: July 2024	Singapore

Work Experience

Dec 2021 - Jan 2022	**Trustana** *Software Engineer Intern* • Trustana is a B2B E-commerce startup that democratizes access to international trade • Spearheaded the effort to build a marketing site using Next.js and a CMS called Plasmic. Containerized it using Docker to facilitate deployment in the cloud • Created the infrastructure for deployment for a web app in AWS using Terraform. The infrastructure consists of a CDN and a Virtual Private Cloud containing public and private subnets, ECS cluster, logging, and an application load balancer	Singapore
Aug 2021 - Dec 2021	**National University of Singapore** *Undegraduate Teaching Assistant* • Conducted weekly tutorial sessions for 18 students on programming methodology using Python • Graded their assignments and provided constructive feedbacks	Singapore
May 2021 - Aug 2021	**ErudiFi (YC W18)** *Frontend Software Engineer Intern* • ErudiFi is a Fintech startup focused on expanding access to higher education in Southeast Asia through affordable financing • Built the fourth major iteration of our mobile app from scratch using React Native and Typescript in less than two months with three other engineers. In doing so, we saw a 52.6% increase in conversion rate within three weeks of launching the update • Built and maintained our own UI components library to cut down development time significantly and used Storybook to document them	Singapore (Remote)

Extracurricular Activities

Oct 2021 - Present	**Indonesian Students' Association in Singapore** *Internal Vice Secretary General* • Oversee the tech, education, and publication team • Spearheaded the effort to connect and unite the Indonesian students in Singapore by creating various interest groups, which grew from 0 to 627 members in just one month • Maintain relationships with the Indonesian Embassy and various Indonesian Students' Associations in different universities both inside and outside of Singapore	Singapore
May 2021 - Present	**National University of Singapore's Students' Union Committee for Information Technology** *Technical Director*	Singapore

- Lead and mentor a multinational team of 15, taught them Git, database design, Python, Django, HTML, CSS, Javascript, and React
- Created and continuously developed a React reusable components library and published it to npm. Documented the components library using Storybook
- Conduct code reviews and provide constructive feedbacks for every pull request made by my team

Skill Sets & Proficiency

Programming Languages	Javascript, Typescript, Python, Java	Proficient
	Go, Bash scripting	Intermediate
	C	Basic
Frameworks	React, React Native, Next.js, Django	Proficient
	Express	Intermediate
Databases	SQL, PostgreSQL, MySQL	Proficient
	Redis, MongoDB	Basic
Cloud Infrastructures & Tools	AWS (EC2, ECS, Cloudfront, VPC, S3, Lambda)	Proficient
	Terraform, Docker	Intermediate
Data Engineering	Hadoop, MapReduce, Spark	Basic
Computer Science Fundamentals	Data Structures & Algorithms	Proficient
	Databases, Networking	Intermediate
	Operating Systems, System Design	Basic
Others	HTML, CSS/Sass, RESTful API	Proficient
	WebSocket	Intermediate
	GraphQL	Basic

Notable Projects

Omega (In progress)	An in-browser IDE built with Node and Go on the backend and React on the frontend. Behind the scenes, each session is being run in its own Docker container inside an EC2 instance
Lexiko	A dynamic DNS server built with Go and Redis that is made for project Omega
E-voucher	Led a team of three to develop an e-voucher platform for students in the National University of Singapore using React, Typescript, Django, and PostgreSQL
Groot	Built an error logging/notification HTTP service written in Go that sends errors to telegram groups using a telegram bot. Deployed to AWS EC2, set up a CI/CD pipeline that builds and pushes a new Docker image, then calls a webhook that runs a bash script inside the EC2 instance to pull, rebuild, and redeploy the newest image

Degree: Bachelor of Computing (Honours) in Computer Science
Cumulative Average Point: 4.40 / 5.00

Year	Level	Course Description	Grades
Aug – Nov 2020	Year 1/Semester 1	Programming Methodology	A
		Introduction to Business Analytics	A
		Calculus for Computing	A-
		Ethics in Computing	A+
		Quantitative Reasoning	A-
		Career Catalyst	CS
Jan – May 2021	Year 1/Semester 2	Data Structures and Algorithms	A-
		Programming Methodology II	A-
		Data Management and Visualization	A-
		Discrete Structures	A-
		English for Academic Purposes	B+
		Living with Mathematics	S
Aug – Nov 2021	Year 2/Semester 1	Database Systems	A-
		Computer Organization	B+
		Software Engineering	B
		Probability and Statistics	B+
		Effective Communication for Computing Professionals	B+
		Independent Software Development Project	CS
		Asking Questions	CS
Jan – May 2022	Year 2/Semester 2	Introduction to Operating Systems	In-progress
		Introduction to Computer Networks	In-progress
		Big Data Systems for Data Science	In-progress
		Introduction to Economic Analysis	In-progress
		Communicating in the Information Age	In-progress

NUS Grading Scale:

A+ & A (5.0); A- (4.5); B+ (4.0); B (3.5); B- (3.0); C+ (2.5); C (2.0); D+ (1.5); D (1.0); F (0)

S = Satisfactory; U = Unsatisfactory

CS = Completed Satisfactorily; CU = Completed Unsatisfactorily

EXE = Exempted; IC = Incomplete; IP = In Progress; W = Withdrawn