

Experience

Software Engineer at Knovel Engineering

Jan 2024 – Present

- Developed browser extensions for dynamic web scraping with LLM prompts and executing remote browser automation tasks with Puppeteer
- Deployed a full-stack LLM web application to third-party and commercial cloud services
- Developing a prototype mobile application for live transcription and speaker diarization

Software Engineering Intern at Fabrica.AI

Oct 2022 – Apr 2023

- Developed self-hosted CI/CD workflow for building, testing and deploying robot software in Jenkins
- Tested behavioural logic for tile-grouting robot with Robot Operating Software (ROS)
- Implemented Makefiles, shellscripts and dotfile configurations to enhance developer productivity

Software Engineering Intern at LUMIQ

Jun 2022 – Aug 2022

- Reconfigured self-managed plugins to work with updated Kubernetes versions on AWS EKS
- Deployed a Google Apps Script add-on as a proof of concept to make LUMIQ optimizer API accessible from Google Sheets

Software Engineering Intern at Netatech Engineering

May 2021 – Aug 2021

- Implemented novel resource usage, irrigation schedule and environment data visualizations with Plotly.js
- Deployed serverless functions for remote device control with MQTT and AWS IoT Core
- Prototyped an Android mobile application with Kotlin and AWS Amplify

Education

Singapore Management University

BSc Computer Science (Artificial Intelligence Track)

Aug 2019 – Dec 2023

- GPA: 3.7 / 4 (Magna Cum Laude)
- Recipient of SCIS (School of Computing and Information Systems) Achievements scholarship
- Dean's List: AY2019-2020 (Year 1), AY2020-2021 (Year 2)

Raffles Institution

Singapore-Cambridge GCE A-Level

Jan 2014 – Dec 2015

Projects

ScamSword

- Prototyped offensive scam-prevention measures developed in collaboration with Open Government Products (OGP)
- *Site inspect* analyzes URL, website DOM, and favicon to generate a comprehensive risk report
- *Scam chat* feature facilitates anonymous chat sessions through Telegram APIs

SourC-VM

- Compiler and virtual machine that targets a subset of the C programming language
- Support for compilation errors, type-checking, conditionals, loops, and stack and heap implementations with visualizations for debugging

Spend Transactions

- Full-stack web application that ingests transactions, processes rewards for credit card expenditure and displays them to users
- Conducted automated infrastructure provisioning with CloudFormation and build releases with Github Actions

Activities

Volunteer at Better.SG

Aug 2022 - Present

- Active consultant for using no-code software tools to help beneficiaries improve digital workflows

Volunteer Lead at Ground-Up Initiative

Aug 2019 – Sept 2022

- Led and coordinated volunteer participation in the flagship weekend programme “Balik Kampung”
- Administered digital workflows for volunteer management, knowledge sharing and social media campaigning

Teaching Roles at Singapore Management University

Jan 2021 – Dec 2022

- Courses: Linear Algebra, Object-Oriented Programming, Computer Hardware and Embedded Systems, DevOps
- Prepared practices and review materials to prepare juniors for major programming lab tests

Skills

Languages: English, Mandarin (All Native)

Software:	Languages:	C • C# • Java • JavaScript • Python • SQL
	Web Development:	HTML/CSS • ReactJS • Spring • ASP.NET • REST APIs
	Data Science, AI/ML:	Tensorflow • Numpy • Pandas • Plotly
	DevOps:	Docker • Serverless • Gitlab CI • Kubernetes • AWS • GCloud • Terraform
	Other:	Git • LaTeX • Bash • Linux