

Experience

Shopee – Software Engineer	Sep 2024 – Present
<ul style="list-style-type: none">Implemented DR codex module for comprehensive triaging of data infrastructure middleware issues to ensure disaster-readiness of company-critical data workflows.Integrated additional rule-checking and custom alert triggers into ETL task scheduling system in line with data governance policies.Enhanced service stability by migrating from unmaintained 3rd party services to self-managed alternatives, and using observability tools to tune application parameters and resolve performance bottlenecks.Provided technical support for internal products with 8000+ DAUs including updating documentation, design specs and API schemas.	
Knovel Engineering – Software Engineer	Jan 2024 – Aug 2024
<ul style="list-style-type: none">Prototyped browser extensions for dynamic web scraping with LLMs and remote dispatch of browser tasks with Puppeteer.Deployed full-stack applications (LLM chatbot, legal case assessment software) to proprietary and public cloud platforms.Integrated and benchmarked proprietary and open-source solutions for speech transcription and speaker diarization.	
Fabrica.AI – Software Engineering Intern	Oct 2022 – Apr 2023
<ul style="list-style-type: none">Designed self-hosted CI/CD workflow for building, testing and releasing Robot Operating System (ROS) software with Jenkins.Refactored build systems, Makefiles and local scripts to enhance developer productivity.	

Education

Singapore Management University – BSc Computer Science	Aug 2019 – Jan 2024
<ul style="list-style-type: none">Artificial Intelligence TrackGPA: 3.7 / 4 (Magna Cum Laude)Dean's List: AY2019-2020 (Year 1), AY2020-2021 (Year 2)Awarded SCIS (School of Computing and Information Systems) Achievements scholarship.	
Raffles Institution – Integrated Programme and A-Levels	Jan 2010 – Dec 2015

Projects

Developer guides	Jun 2022 – Present
Creating and maintaining cheatsheets, references and guides for learning about programming languages, application frameworks, developer tooling and workflows.	
CoastalClear (GitHub , feature , media coverage)	May 2024 – Jul 2024
Web application that integrates historical data and live feedback with an interactive map interface for efficient and coordinated cleanups in coastal areas. Awarded as a finalist among 19 teams with \$20,000 funding and further development in an 8-week accelerator programme.	
ScamSword	Feb 2023 – May 2023
Prototyped proof-of-concepts for scam-prevention measures in collaboration with Open Government Products (OGP). Site inspect analyzes website components like URL, DOM, and favicon to generate a comprehensive risk report. Scam chat feature facilitates anonymous chat sessions through Telegram APIs.	
SourC-VM (GitHub)	Feb 2023 – May 2023
Compiler and virtual machine that targets a subset of the C programming language. Support for compilation errors, type-checking, conditionals, loops, and visualizations for the stack and heap for debugging.	
Spend Transactions (GitHub)	Aug 2021 – Nov 2021
Full-stack web application that ingests transactions, processes rewards for credit card expenditure and displays them to users. Automated infrastructure provisioning with CloudFormation and build releases with Github Actions.	

Activities

Better.SG – Volunteer	Aug 2022 – Dec 2024
<ul style="list-style-type: none">Providing tech helpdesk and consulting services for nonprofits looking to improve digital workflows.	
Singapore Management University – Teaching Roles	Jan 2021 – Dec 2023
<ul style="list-style-type: none">TA for Linear Algebra, Object-Oriented Programming, Computer Hardware and Embedded Systems, and DevOps mods.Composed practice and review materials to prepare juniors for major programming lab tests.	

Skills

Languages: English, Mandarin (All Native)	
Programming: Web frontend (<i>HTML, CSS, Bootstrap, React</i>), Web backend (<i>Spring, FastAPI, Flask, ExpressJS, ASP.NET</i>), Message Brokers (<i>Kafka, RabbitMQ</i>), Databases (<i>MySQL, PostgreSQL, ClickHouse, DynamoDB, Redis</i>), Containers (<i>Docker, Kubernetes</i>), Cloud (<i>AWS, Azure, GCP</i>), DevOps (<i>Gitlab CI, Jenkins, Grafana, Prometheus</i>), IaC (<i>CloudFormation, Terraform</i>), Data Science (<i>Pandas, Numpy, Jupyter, Plotly</i>), ML (<i>PyTorch, TensorFlow</i>), Tooling (<i>Git, Bash, Powershell, Linux/UNIX</i>)	