

TIMOTHY LEOW

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INTERNSHIPS & WORK EXPERIENCE

DSO National Laboratories (Singapore), Software Engineer Intern

May 2024 - Aug 2024

- Constructed a robust back-end for a chatbot with Retrieval-Augmented Generation (RAG) leveraging tools such as vLLM (for model serving), Flask (for API server) and LangChain (for RAG logic).
- Built and containerized a PDF vectorizer with LangChain and Podman to automatically maintain a FAISS vector database which powered the data retrieval process.
- Created comprehensive documentation and collaborated with the front-end developer to deliver a robust solution which greatly helped with onboarding users to a newly revamped procurement system.

educa8.info (Singapore), Front-End Web Development Intern

Jan 2022 - Aug 2022

- Developed the front-end of web-application - streamlined processes of a client company through digitalization of physical documents, mainly using Vue.js and the Quasar Framework.
- Developed intuitive user interfaces to provide ease of data entry and better traceability of business transactions.
- Significantly improved the company's working efficiency, allowing its staff to work 3 hours less every single day.

EDUCATION

National University of Singapore

Aug 2022 - May 2026

Bachelor of Computing in Computer Science (Penultimate Year)

GPA: 4.54/5.00

Relevant Coursework: Software Engineering, Introduction to AI and Machine Learning, Introduction to Media Computing
Building Focus Areas in Artificial Intelligence and Multimedia Information Retrieval

PROJECTS

NUS Orbital Project - SyncUp, Co-Creator

May 2023 - Aug 2023

- Co-created SyncUp - a project management software utilising calendar API data to suggest optimal meeting times within a group.
- Honed competencies in Flutter, Google Firebase and Google Calendar API integration. Rigorous version control was exercised with Git and GitHub.
- [Achieved Apollo 11 \(2nd Highest Achievement Level\).](#)

Software Engineering Individual Project - wallE, Creator

Aug 2023 - Sep 2023

- Created a ToDo-List ChatBot with a graphical user interface, wallE. Implemented with Java and integrated with JavaFX for the GUI.
- Ensured comprehensive unit testing and implemented Continuous Integration with GitHub. Adhered to strict code quality standards. Made personalised UI improvements on top of course requirements.

CERTIFICATIONS

[Harvard's CS50AI: Introduction to Artificial Intelligence with Python](#) (Jul 2021 - Aug 2022)

AWARDS AND SCHOLARSHIP

- DUO-Singapore Exchange Fellowship Award - for outstanding academic and co-curricular records in university (Aug 2024 - Jan 2024)
- NUS Merit Scholarship - for outstanding academic and co-curricular records in pre-university (Aug 2022 - May 2026)

LEADERSHIP

NUS Jazz Band, President

May 2023 - May 2024

- Maintained the [NUS Jazz Band's](#) Artistic Output, by closely directing a committee of 5 as measured by repeatedly sold-out shows

LANGUAGES

English, Chinese