Liu Chi Wai Louis | Email: li0002is@e.ntu.edu.sg

Website: https://www.lcwlouis.com | Availability: From Aug 2026

EDUCATION

Nanyang Technological University, Singapore Bachelor of Computing (Computer Science)

Aug 2022 – Jun 2026 (Expected)

• Expected Honours (Distinction)

INTERNSHIP EXPERIENCE & WORK EXPERIENCE

Synapxe, Singapore

Jan 2025 - Present

Data Science & Artificial Intelligence Intern

- Developed proof-of-concept PostgreSQL and MongoDB integration to improve completeness and comprehensiveness for complex queries for LightRAG to assess the feasibility, performance and scalability for large-scale production.
- Collaborated with a team of data scientists and engineers to enhance current Generative AI applications, by experimenting with different styles of Prompt Engineering, reviewing, debugging code and performing tests.
- Skills: Azure AI Services, Azure AI Document Intelligence, Azure DevOps, Azure CosmosDB, PostgreSQL, LangChain, LangGraph, Pydantic, Google Agent Development Kit, Ollama

iStaging, Taiwan May 2024 – Jul 2024

Artificial Intelligence Engineer Intern

- Conducted comprehensive research and contributed to the development of a Generative AI Chatbot utilising Amazon Web Services (AWS) Transcribe, Bedrock, Polly and Translate.
- Enhanced Retrieval Augmented Generation (RAG) techniques to optimise search capabilities using AWS Bedrock Agents using Claude 3 Haiku, a large language model by Anthropic.
- · Skills: AWS, Python, JavaScript, REST API, Prompt Engineering, Jira

ACADEMIC PROJECT

Nanyang Technological University, Singapore

Jan 2024 - May 2024

Software Engineering - MacTaxi

- Led the backend team, in designing and implementing APIs using design patterns while ensuring efficient and maintainable code applying the knowledge gained from the lectures.
- Used Postman as a proxy to streamline integration, understand external applications and enhance backend API debugging.

Nanyang Technological University, Singapore

Feb 2023 - May 2023

Introduction to Data Science & Artificial Intelligence - Predicting If A Movie Will Win An Oscar

- Performed data cleaning and analysis to optimise the creation of better models by removing unnecessary data.
- Leveraged Python to create and test models using Applied Decision Tree, K-Nearest Neighbour and Random Forest algorithms with RandomOverSampler, SMOTE and ADASYN to identify the highest accuracy in predicting winners.

LEADERSHIP & CO-CURRICULAR ACTIVITIES

Nanyang Technological University, Singapore

Sep 2022 – Sep 2023

Hall 7 Council - Publications Secretary

- Spearheaded a team of 19 sub-committee members and captured photo and videos of residents' activities, collaborating with other office holders to create lasting memories for residents.
- Implemented new media storage and manpower management system for efficient resident photo and video access.

PERSONAL PROJECTS

TelegramGPT

Link to Repository: https://github.com/lcwlouis/TelegramGPT

A Telegram Chatbot inspired by ChatGPT and Open WebUI

- Utilised libraries by OpenAI, Google and Anthropic along with REST APIs from Ollama to develop a Telegram Chatbot.
- Designed and implemented a user friendly navigation interface on Telegram enhancing usability and accessibility.

SKILLS

Languages: Proficient in English, Chinese (Cantonese), Chinese (Mandarin) and Basic Singapore Sign Language Programming: Python, Java, C, JavaScript, Typescript

Software Applications and Frameworks: CLion, Intellij, Visual Studio Code, Git, Postman, MongoDB, Express.js, React.js, Node.js, Next.js, MS SQL, REST APIs, Vue, Docker, Cloudflare, Linux, Google Agent Development Kit, LangChain, LightRAG