Kyrene Chua

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WORK AUTHORISATION

Singapore Citizen; eligible for H-1B1 and J-1 US visas, and an HPI UK visa, with no petition required

EDUCATION

National University of Singapore   Aug 2021 - May 2025 (Expected)

Bachelor of Engineering in Computer Engineering, Honours   *Singapore*

- Expected honours class: First Class
- Under the Engineering Scholarship Program
- Notable Coursework: CS2040C Data Structures and Algorithms in C++, CS2113 Software Engineering and Object-Oriented Programming, CS3244 Machine Learning, CS2102 Database Systems

WORK EXPERIENCE

Software Engineering Intern   May 2024 – Present

SAP SE   *Singapore*

- Enhanced employee document validation efficiency and accuracy using Python web frameworks (Flask and FastAPI), RESTful APIs, HTTP requests, OAuth2.0, and OpenAI integration, resulting in reduction in validation time and improved user satisfaction
- Contributed to the development of bias detection algorithms for large language models by extracting and integrating data from bias text guidelines, effectively reducing biased text generation and improving the overall quality of AI-generated content
- Maintained and enhanced an internal cloud system using Python Flask, facilitating secure and responsible consumption of AI platforms such as OpenAI, AWS Bedrock, GCP VertexAI, and open-source LLMs, leading to increase in system reliability and scalability while ensuring data security and compliance with industry standards

Software Engineering Intern   May 2023 – Nov 2023

Defence Science and Technology Agency (Information Program Centre)   *Singapore*

- Constructed components of a data analytics system using Python, encompassing data collection, database storage, and knowledge representation for departmental data analysis
- Integrated machine learning and artificial intelligence modules to enhance data analytics capabilities, boosting system efficiency and analytics quality
- Developed a Question-Answer system using Generative AI, LLMs, and Prompt Engineering concepts, decreasing the time required to sift through company data for information

PROJECTS

Nomura Trailblazer AI Challenge 2024

- Built a Streamlit app with a resume evaluator, career goals advisor, and course recommendations using AWS to help employees with their career progression
- Implemented Retrieval-Augmented Generation (RAG), vector databases, LLMs, and prompt engineering to enhance information retrieval and user interaction and reduce hallucinations
- Worked in a team of 3 to create and develop our submission and attained 3rd place out of 200 groups

TECHNICAL COMPETENCIES AND CERTIFICATIONS

Languages: C++/C, Python, Java, SQL, HTML, CSS
Developer Tools: Git, Docker, AWS, Azure
Libraries: NumPy, Pandas, Matplotlib, SciPy
Certifications: Deeplearning.ai Generative AI for LLM, MITx_6.81x Machine Leaning with Python