LIM ZHENG XUAN

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WORK EXPERIENCE

ST Engineering | Deepbrain   **Nov 2024 - Present**
AI/ML Engineer
- Led the development of a Full-Stack web application with Automatic Speech Recognition (ASR) capabilities for a hotline service, enhancing the workflow of around 40 users
- Developed a Natural Language Understanding (NLU) engine to accurately extract key entities from transcribed text to automatically populate structured forms
- Designed and developed a microservice application using AWS Bedrock to leverage LLM capabilities for text summarization
- Managed AWS resources such as IAM, ECR, S3 and EC2 for secure and scalable cloud deployments
- Developed targeted proof-of-concepts (POCs) to evaluate client use cases and business workflows, validating technical feasibility before full-scale implementations
- Collaborated across cross-functional teams to gather requirements and deliver solution that meets stakeholders standards and satisfaction

AI Singapore   **Jan 2024 – Oct 2024**
AI Apprentice (AIAP Batch #15)
- Formulated and developed data cleaning and feature engineering pipelines using Kedro to automate data preprocessing for downstream tasks, increasing data ingestion efficiency
- Developed an LLM-based solution for English grammar correction and multi-class error classification, consisting of 60 distinct error types
- Employed various Prompt Engineering techniques (e.g., Few Shot, Chain of Thought) using LangChain to steer LLMs towards generating desired outputs, improving error classification performance by 46%
- Implemented RAG architecture using Milvus vector database to integrate document retrieval methods, further increasing solution performance by 20%
- Achieved an additional 8% improvement in performance through fine tuning of LLMs using OpenAI SDK and hyperparameter tuning
- Mentored a group of 6 newer apprentices on machine learning concepts and good software practices to accelerate their learning experience in the programme

National University Health System (NUHS)   **May 2022 – Jul 2022**
AI & Data Science Intern
- Built an API service from scratch to carry out ETL processes using an enterprise-level data integration software to support a chatbot application
- Performed deployment of the API service through Docker and Kubernetes in the test environment
- Collaborated in a team of 6 members following the Agile SCRUM framework to develop the chatbot application according to Sprint objectives

EDUCATION

Georgia Institute of Technology   **Jan 2026 - Present**
- Master of Science in Computer Science

National University of Singapore (NUS)
- Bachelor of Engineering with Honours (Distinction)
- Minor in Computer Science

PROFESSIONAL CERTIFICATIONS
- AWS Certified Solutions Architect - Associate
- AWS Certified Cloud Practitioner
- Chartered AI Engineer (CAIE) - Associate AI Engineer

SKILLS
Python | SQL | Typescript | Golang | Svelte | Numpy | Pandas | Scikit-Learn | Matplotlib | TensorFlow | PyTorch | HuggingFace | Git | Docker | Kubernetes | Kedro | MLOps | AWS | Agile