Keith Low

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EDUCATION

Singapore University of Technology and Design

Bachelor of Engineering in Computer Science and Design | GPA: 4.53/5.00 Sep. 2021 – May 2025

- Relevant Coursework: Elements of Software Construction, Algorithms, Machine Learning, User Interfaces, Databases, Computer Vision, Natural Language Processing

WORK EXPERIENCE

AI Engineer Jan. 2024 – Jul. 2024

Hyundai Motor Group Innovation Center Singapore (HMGICS)

- Implemented a Retrieval-Augmented Generation (RAG) system for domain-specific Question-Answering (QA), including data pre-processing, vector database integration, and evaluation
- Developed a chat message disentanglement pipeline using LLMs for efficient annotation

PROJECTS

CrossTalk Secure — Offline Speech Translation Device | PyTorch, HuggingFace Jan. 2025 – May 2025

- Built and evaluated full ML pipeline for offline transcription and translation, including data procurement, model training, and inference
- Improved translation quality and response speed to enable secure, low-latency translations with SEA context

WhisperEMMA — Real-Time Speech Recognition | PyTorch, Whisper, HuggingFace Jan. 2025 – Apr. 2025

- Redesigned Whisper's model architecture to support real-time transcription, performed finetuning and inference
- Improved transcription quality and responsiveness compared to existing baselines, demonstrated strong quality-latency trade-offs

LLMContextViz — LLM HCI Research | Python, Explanability, Visualization, User Studies Feb. 2024 – Dec. 2024

- Explored LLM context windows and the challenges of context overflow on model performance
- Designed user studies to understand real-world interactions with LLMs under constrained context settings

ACcess — IoT Air Conditioner Controller System | Java, C, Android Studio, Arduino Jan. 2023 – Apr. 2023

- Developed a mobile app paired with an IoT device to turn traditional air conditioners smart
- Enabled users to schedule AC activity, set temperature defaults and control devices remotely at low cost

EXTRA-CURRICULAR ACTIVITIES

Climbers Club President Jan. 2022 – Jan. 2023

Singapore University of Technology and Design

- Led committee planning and climbing activities, directed club-related activities in school-wide events

SKILLS

Languages: Java, Python, C/C++, SQL, JavaScript/TypeScript, HTML/CSS
Frameworks: PyTorch, React, Node.js, Vite.js, Express.js
Tools: Git, GitHub, VS Code, Android Studio, Agile, MongoDB
Libraries: HuggingFace, LangChain, LlamaIndex, pandas, NumPy, Matplotlib, ctypes, Transformers, PEFT