

# Keith Low

+65 8908 3135 | [low.wei.kang.keith@gmail.com](mailto:low.wei.kang.keith@gmail.com) | [linkedin.com/in/keith-lwk](https://linkedin.com/in/keith-lwk) | [github.com/keeve101](https://github.com/keeve101)

## EDUCATION

---

### Singapore University of Technology and Design

Bachelor of Engineering in Computer Science and Design, Honours (Highest Distinction)

Sep. 2021 – May 2025

- Exchange Semester at University of Waterloo (Fall 2023)
- Relevant Coursework: Software Engineering, Machine Learning, Databases, Computer Vision, NLP

## WORK EXPERIENCE

---

### AI Engineer

Jan. 2024 – Jul. 2024

Hyundai Motor Group Innovation Center Singapore (HMGICS)

- Developed and deployed a domain-specific Question Answering(QA) system using Retrieval-Augmented Generation (RAG), improving retrieval relevance and user query accuracy
- Managed model deployment and testing using AWS (S3, Bedrock) services and Docker containers
- Developed a chat message disentanglement pipeline, reducing annotation time by using LLMs
- Evaluated vision-language models for knowledge graph construction, conducted literature review and assessed feasibility for business use cases

## PROJECTS

---

### CrossTalk Secure — Offline Speech Translation Device | PyTorch, HuggingFace

Jan. 2025 – May 2025

- Developed an offline multilingual speech translation system to support low-latency communication for security personnel in Southeast Asia
- Designed full ML pipeline including training, evaluation and model deployment using Runpod cloud GPUs
- Improved translation quality and response speed to enable secure, low-latency translations

### WhisperEMMA — Real-Time Speech Recognition | PyTorch, Whisper, HuggingFace

Jan. 2025 – Apr. 2025

- Redesigned Whisper's architecture to enable streaming 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, Explainability, Visualization, User Studies

Feb. 2024 – Dec. 2024

- Researched limitations of LLM context windows through user studies, literature reviews and visualizations
- Designed user studies to understand real-world interactions with LLMs under constrained context settings

### Block Diagram Parse — Block Diagram Recognition | OpenCV, Transformers

Sep. 2024 – Dec. 2024

- Benchmarked CNN and transformer backbones against state-of-the-art methods on block diagram recognition
- Implemented synthetic block diagram generation to improve training data diversity

## LEADERSHIP & SERVICE

---

### Climbers Club President

Jan. 2022 – Jan. 2023

Singapore University of Technology and Design

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

### Rotaract Club Member

Nov. 2021 – Aug. 2022

Singapore University of Technology and Design

- Served as an educational mentor through YEAH! program, volunteering to teach and offer free tuition to underprivileged primary school children at local community center

## SKILLS

---

**Languages:** Java, Python, C/C++, SQL, TypeScript

**Tools:** Git, HuggingFace, LangChain, Transformers, MongoDB, PyTorch

**Cloud/Infra:** AWS, Runpod, Docker, Linux

**Certifications:** Google Cloud Certified Professional Machine Learning Engineer