

Keith Low

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EXPERIENCE

AI Engineer

Jan. 2024 – Jul. 2024

Hyundai Motor Group Innovation Center Singapore (HMGICS)

Singapore

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

Undergraduate Teaching Assistant

Sep. 2022 – Dec. 2022

Singapore University of Technology and Design

Singapore

- Crafted fundamental programming questions in Python to facilitate understanding of Computer Science concepts
- Collaborated with course instructor to provide support to students, offering one-on-one assistance and explanations

PROJECTS

LLMContextViz | *Python, Explainability, Visualization, User Studies*

Feb. 2024 – Dec. 2024

- Investigating LLM context windows and the challenges of context overflow on model performance
- Conducting user studies to understand how users interact with LLM context windows in common use cases

Personal LLM Chat Application | *Python, C++, QLoRA*

Oct. 2023 – Nov. 2023

- Developed generative AI application utilizing a finetuned LLM to perform basic personal introduction and have short conversations
- Finetuned a quantized 7B parameter large-language model using quantized LoRA finetuning approach
- Created and utilized Python bindings to C++ low-level API given by llama.cpp library to run inferences locally

IoT Air Conditioner Controller System | *Java, C, Android Studio, Arduino API*

Jan. 2023 – Apr. 2023

- Worked in a team to develop an app to allow users to control their air conditioners remotely
- Utilized Java, Android Studio to develop the app with Firebase database backend, C for bridging MCU
- Awarded SUTD x Singtel Merit Award for the project

Food Security Indicator Estimator Model | *Python, NumPy, Matplotlib, Git*

Sep. 2022 – Dec. 2022

- Developed a food security indicator estimator linear regression model to provide a low-cost early estimator of food security across nations based on the Global Food Security Index
- Achieved Best Project for the term's multi-disciplinary design challenge

Image Processing for Bluetooth Thermal Printer | *C, Arduino API*

Jan. 2022 – Apr. 2022

- Implemented image processing algorithm to decode snapshots captured from microcontroller, conversion into dithered formats for print through Bluetooth thermal printer

EDUCATION

Singapore University of Technology and Design

Singapore

Bachelor of Engineering in Computer Science and Design

Sep. 2021 – May 2025

- 4.58/5.0 GPA

EXTRA-CURRICULAR ACTIVITIES

Climbers Club President

Jan. 2022 – Jan. 2023

Singapore University of Technology and Design

Singapore

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

Rotaract Club Member

Nov. 2021 – Aug. 2022

Singapore University of Technology and Design

Singapore

- 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, JavaScript/TypeScript, HTML/CSS

Frameworks: React, Node.js, Vite.js, Express.js

Tools: Git, GitHub, VS Code, Android Studio, Agile, MongoDB

Libraries: pandas, NumPy, Matplotlib, ctypes, PyTorch, Transformers, PEFT