# Honghao Liu

14B Lok Moon Mansion, Wan Chai, Hong Kong
852-65024131 stein.h.liu@gmail.com github.com/hlsud

## Education

**Hong Kong University of Science and Technology (Guangzhou)** **Sep. 2024 – present**
*Ph.D. in Artificial Intelligence, Supervisor: Lionel Ni* *Guangzhou, Guangdong*

**Hong Kong University of Science and Technology** **Sep. 2020 – Sep. 2022**
*MPhil. in Data Science and Analytics, GPA: 3.66/4, Supervisors: Qiong Luo and Yang Xiang* *Hong Kong*

**Wuhan University of Technology** **Sep. 2016 – Jun. 2020**
*Bachelor of Engineering in Computer Science GPA: 88.6/100* *Wuhan, Hubei*

## Work Experience

**International Digital Economy Academy, Research Intern** **Sep. 2024 – present**
Privacy-Preserving Data Synthesis for Continual LLM Pretraining *Shenzhen, Guangdong*

- Proposed an entity-based method that synthesizes high-quality encrypted data to preserve personally identifiable information (PII) while enabling LLMs to securely encode new knowledge.

**DJI, Research Intern** **Jul. 2022 – Sep. 2022**
Accelerating perception algorithm for autonomous vehicles *Shengzhen, Guangdong*

- Implemented utility functions for the perception algorithms on the GPUs using CUDA C; Coordinated with the high-performance computing and perception teams; Applied this work to the listed Kiwi vehicles.

## Research Experience

**Multi-talker Speech Decoding from the Neural Activity** **Jan. 2023 - May 2024**
*Research Assistant, The City University of Hong Kong* *Hong Kong*

- Collecting the EEG and fMRI data; Preprocessed fMRI data with the fMRIPrep and QSIPrep; Designed the multi-speaker decoding workflow, achieved BLEU-1 scores of 21% under both single- and multi- talker conditions.

**Efficient Radio Interferometric Imaging on the GPU** **Oct. 2020 – Sep. 2022**
*The Hong Kong University of Science and Technology* *Hong Kong*

- Designed and implemented and designed the non-uniform Fourier transform (NUFFT) in CUDA, parallelized the gridding and degridding methods; Optimized the memory access pattern and throughput and loading balance;

## Publications

[1] **H. Liu**, Q. Luo and F. Wang, *Efficient Radio Interferometric Imaging on the GPU*, **2022 IEEE 18th International Conference on e-Science**, Salt Lake City, UT, USA, 2022, pp. 95-104, doi: 10.1109/eScience55777.2022.00024.
[2] **H. Liu**, Kunchang Li, Qian Zhou, Qixuan Wang, Jingyuan Sun, Zhiwu Huang and Jixing Li, *Decoding multi-talker speech from EEG signals*, **IJCAI Workshop on Human Brain and Artificial Intelligence**, Jeju, South Korea, 2024.
[3] J. Gu, X. Jiang, Z. Shi, H. Tan, X. Zhai, C. Xu, W. Li, Y. Shen, S. Ma, **H. Liu**, S. Wang, K. Zhang, Y. Wang, W. Gao, L. Ni and J. Gao, *A Survey on LLM-as-a-Judge*, 2025, arXiv: arXiv:2411.15594. doi: 10.48550/arXiv.2411.15594.

## Awards & Prizes

- Hong Kong University of Science and Technology Scholarship
- Wuhan University of Technology Scholarship
- Wuhan University of Technology Merit Student Award

## Additional Information

**Skills**: C++, CUDA C, python, MPI, Linux, Git, Multi-threading, LaTeX, solidity
**Language**: Mandarin (native), English (fluent)
**Interests**: Alternative rock music and volunteering