KEXIN ZHENG

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SUMMARY

Mphil student in Computer Science focused on optimizing model performance and enhancing user experience for AI applications. Experienced in building AI solutions using Retrieval-Augmented Generation (RAG), prompt engineering, and frameworks like LangChain and PyTorch. Seeking to leverage my technical skills and research expertise to deliver high-impact AI solutions for real-world challenges.

EXPERIENCE

Department of Computer Science and Engineering,
The Hong Kong University of Science and Technology **Hong Kong, HK**
Part-time Research Assistant Oct, 2025 - Dec, 2025

- Designed and developed an Agentic AI pipeline for pose-driven 2D video effect generation using LangChain and OpenAI API. Implemented RAG and few-shot prompting to enhance output quality with contextual data.
- Conducted a comprehensive user study with 10 users to evaluate the usability and expressiveness of the designed system. Utilized statistical methods to validate research hypotheses.

Department of Computer Science, City University of Hong Kong **Hong Kong, HK**
Research Assistant Jul, 2021 - Jul, 2022

- Designed a novel acoustic signal for human face anti-spoofing. Developed corresponding signal extraction algorithm in Python for data pre-processing.
- Conducted a comprehensive study with 30 participants to create a large-scale, high-diversity acoustic-based face anti-spoofing dataset, containing over 250,000 signal segments. Performed data pre-processing and cleaning to ensure high-fidelity model training.
- Assisted in the evaluation of a deep learning model for multi-modal face anti-spoofing. Utilized PyTorch library to compare model performance with various benchmark models.
- Developed a demo Android application in Java for face anti-spoofing, integrating the multi-modal deep learning model using PyTorch Mobile.
- Published two second-author papers in reputable journals (IEEE TDSC and IEEE TIFS), with one project awarded Gold Medal at the International Exhibition of Inventions, Geneva, 2023.

School of Creative Media, City University of Hong Kong **Hong Kong, HK**
Undergraduate Researcher Jun, 2020 - May, 2021

- Designed and developed user study software using Processing to control hardware with GUI and collect data.
- Developed an AR glasses gesture recognition Android application with Tensorflow and socket.

EDUCATION

The Hong Kong University of Science and Technology **Hong Kong, HK**
Master of Philosophy in Computer Science and Engineering Feb 2023 - present

- GPA:3.78/4.30
- Courses: Machine Learning, Computer Vision, Advanced Digital Design

City University of Hong Kong **Hong Kong, HK**
Bachelor of Science in Creative Media (First Class Honours) Sep 2017 - Jul 2021

- GPA:3.80/4.30, (Top 10%)
- Courses: Software Engineering Principles and Practice, Applied Algorithms, Data Structures for Media

PUBLICATION

- Kong, Chenqi, **Kexin Zheng**, Yibing Liu, Shiqi Wang, Anderson Rocha, and Haoliang Li. "M ^{3} FAS: An Accurate and Robust MultiModal Mobile Face Anti-Spoofing System." *IEEE Transactions on Dependable and Secure Computing* (2024).

- Kong, Chenqi, **Kexin Zheng**, Shiqi Wang, Anderson Rocha, and Haoliang Li. "Beyond the pixel world: A novel acoustic-based face anti-spoofing system for smartphones." *IEEE Transactions on Information Forensics and Security* (2022).
- Nasser, Arshad, **Kexin Zheng**, and Kening Zhu. "ThermEarhook: Investigating spatial thermal haptic feedback on the auricular skin area." *In Proceedings of the 2021 International Conference on Multimodal Interaction* (2021).

SCHOLARSHIPS & AWARDS

2023 - 2025	**HKUST Postgraduate Studentship**
2023	**Gold Medal, the International Exhibition of Inventions, Geneva**
2018 - 2021	**CityU Scholarship**
2017 - 2020	**Dean's List Award in School of Creative Media**
2019	**HKSAR Reaching Out Award**

SKILLS

Programming Languages:	Python, HTML/CSS, JavaScript, C#, LaTeX
Frameworks & Tools:	LangChain, PyTorch, Unity
Design Software:	Adobe Suite(Photoshop, Illustrator, UX, Premiere), Figma
Languages:	English(IELTS: 8.0), Mandarin(Native), Cantonese(Intermediate)