

# 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<sup>3</sup> 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

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

## SKILLS

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<b>Programming Languages:</b>	Python, HTML/CSS, JavaScript, C#, L <sup>A</sup> T <sub>E</sub> X
<b>Frameworks &amp; Tools:</b>	LangChain, PyTorch, Unity
<b>Design Software:</b>	Adobe Suite(Photoshop, Illustrator, UX, Premiere), Figma
<b>Languages:</b>	English(IELTS: 8.0), Mandarin(Native), Cantonese(Intermediate)