

Education

- 2018–2023 **Ph.D. in Computer Science**, *City University of Hong Kong*, Hong Kong SAR.
2015–2018 **M.Sc. in Computer Science**, *Carl von Ossietzky University of Oldenburg*, Germany.
2012–2016 **B.Sc. in Computer Science**, *Carl von Ossietzky University of Oldenburg*, Germany.

Experience

- 09.2023–present **Senior AI Researcher**, *Noah's Ark Lab, Huawei Hong Kong Research Centre*, Hong Kong.
- Led a cross-functional R&D project from concept to production, delivering a novel AI-powered sensing system for a future consumer IoT product. Directed the end-to-end ML pipeline, resulting in a state-of-the-art model that significantly outperformed baseline approaches. Secured project funding and roadmap approval based on successful PoC demonstrations to executive leadership.
 - Designed a machine learning-based compiler optimization system for AI compilers. The compiler reduced inference latency by over 20% for various production deep learning models. Worked on the the full lifecycle from research and prototyping to integration with the company's software stack.
 - Led research on a foundational multimodal large language model, designing and implementing novel architectural extensions that enabled LLMs to process and reason over non-textual data modalities. The proof-of-concept achieved recognition as a "Best Demo" award-winner in a company-wide competition, directly catalyzing the formation of a new product development initiative.
- Technologies:** PyTorch, Transformers, LLMs, VLMs, MLOps, Sensor Fusion.
- 2020–2021 **Teaching Assistant (Augmented Reality)**, *City University of Hong Kong*, Hong Kong.
- Taught 27 students C# programming and Unity development for Augmented Reality.
 - Supervised student groups throughout the entire project lifecycle, from initial concept to creating a functioning AR prototype.
- 2018–2019 **Computer Graphics Engineer**, *Centre for Applied Computing and Interactive Media*, Hong Kong.
- Developed an Augmented Reality app called City In Time for the Hong Kong Tourism Board and published it on the iOS and Android app stores. Developed the core AR features and implemented high-performance graphics pipelines for interactive 3D content.
- 2015–2018 **Research Student**, *Nara Institute of Science and Technology*, Japan.
- Worked on a drone delivery system, using sensor fusion and real-time visual SLAM, focusing on 3D point cloud processing to enable precise autonomous landing.
 - Developed a functional prototype for the Microsoft HoloLens to investigate the use of AR for medical teaching. This was evaluated with medical professionals.
- 2014–2016 **Teaching Assistant**, *University of Oldenburg*, Germany.
- Organized and taught multiple tutorial classes for up to 30 undergraduate students in Theoretical Computer Science, Computer Networks and a Freshman Introduction course.

Scholarships and Awards

- 2024 City University of Hong Kong - Outstanding Research Thesis Award
2020–2023 Hong Kong PhD Fellowship - Academic Excellence Award
2019–2023 Hong Kong PhD Fellowship
2018–2019 Japanese Government (MEXT) Scholarship International Students by University Recommendation
2018 Best Short Paper Award at ACM SIGGRAPH VRCAI
2017 DAAD FIT - International Research Internships in Information Technology for Master's Students

Skills

- AI Transformers, LLMs, VLMs, Multi-Modal AI, Time-Series Models, Generative AI, PyTorch
Languages Python (Expert), C/C++ (Advanced), Java (Advanced)
Domains IoT, Edge AI, Computer Vision, AR/VR, Telecommunications, Healthcare Technology

Languages

- German Native Proficiency
English Full Professional Proficiency
Japanese Limited Working Proficiency / Conversational