Zihan Wu

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EDUCATION

City University of Hong Kong, Electrical Engineering — **Hong Kong SAR, China**
Ph.D Candidate, Electrical Engineering — 2020 – Present

University of Science and Technology of China — **Hefei Anhui, China**
Bachelor of Science, Physics — 2015 – 2020

University of Science and Technology of China — **Hefei Anhui, China**
Bachelor of Science, Mathematics and Applied Mathematics — 2015 – 2020

PROFESSIONAL EXPERIENCE

City University of Hong Kong, Department of Electrical Engineering — **Hong Kong**
Research Assistant — Nov. 2024 – Present

City University of Hong Kong, Department of Electrical Engineering — **Hong Kong**
Teaching Assistant, Design Project, Topics in Computer Graphics, Linear Systems Theory & Design — 2021 – 2024

City University of Hong Kong Shenzhen Research Institute — **Shenzhen, China**
Research Assistant, Tensor Decomposition and Machine Learning — Jun. 2020 – Sep. 2020

University of Oxford, Physics Department — **Oxford, UK**
Research Assistant, Single Molecular Semiconductor based on DNA structure — Jun. 2018 – Sep. 2018

PROJECTS

Machine Unlearning Research and Applications — **Hong Kong**
Machine Learning, Privacy — 2023 – Present

- Developed LMEraser system with adaptive prompt tuning techniques for large language model unlearning
- Implemented efficient methods to remove specific knowledge from pre-trained models
- Researched state-of-the-art techniques and challenges in machine unlearning
- Skills: PyTorch, Transformers, Prompt Engineering
- Publications: AISTATS 2025, IEEE Trans. on Emerging Topics in Computational Intelligence

Co-Clustering Algorithms and Applications — **Hong Kong**
Computer Vision, Data Mining, Computational Biology — 2022 – Present

- Designed scalable co-clustering algorithms with dynamic partitioning and hierarchical merging for large datasets
- Developed novel adaptive co-clustering for ellipse detection in real-world measurement systems
- Created convex-hull based method with manifold projections for detecting cell protrusions
- Skills: C++, MATLAB, Image Processing, Computational Geometry, Statistical Analysis
- Publications: IEEE SMC 2024, IEEE Trans. on Instrumentation & Measurement, Computers in Biology and Medicine

X-Shard: Transaction Processing for Blockchain — **Hong Kong**
Distributed Systems, Blockchain — 2023 – 2024

- Contributed to optimistic cross-shard transaction processing algorithms
- Implemented and evaluated blockchain sharding techniques
- Skills: Distributed Algorithms, Rust, Performance Analysis
- Publication: IEEE Trans. on Parallel and Distributed Systems

SKILLS

Languages: English (TOEFL: 107/120, Speaking: 23);

Programming: C++, MATLAB, PyTorch, Rust, Transformers, Image Processing, Distributed Algorithms;

Research Areas: Machine Learning, Computer Vision, Natural Language Processing, Data Mining, Blockchain, Privacy-Preserving ML;

Technical Skills: Algorithm Optimization, Statistical Analysis, Computational Geometry;

AWARDS & HONOURS

Hong Kong PhD Fellowship Scheme (HKPFS) 2020–2024

National Encouragement Scholarship: *given by the Ministry of Education of the People's Republic of China (top 2%)* 2017–2018

Physical Activity Assessment System And Method: *Patent HK30081186* May. 2023