XIAOKUN (KEN) ZHONG

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EDUCATION

Hong Kong University of Science & Technology (HKUST)　Sep 2022 – Jun 2026 (Expected)
BSc in Mathematics (Computer Science Track)　*Kowloon, Hong Kong*
- Relevant Coursework: Honors Calculus, Linear Algebra, Artificial Intelligence

University of California, Berkeley　Jun 2023 – Aug 2023
Summer Session Exchange　*Berkeley, CA*
- Course: CS61A (Structure and Interpretation of Computer Programs)

RESEARCH EXPERIENCE

Dartmouth College　Feb 2025 – Present
Research Assistant, Advisor: Prof. Yaoqing Yang　*Hanover, NH*
- Investigating phase transitions and loss landscapes of Physics-Informed Neural Networks (PINNs) to understand model convergence and generalization for complex physical systems.
- Developing and implementing novel PINN architectures using PyTorch to solve systems of partial differential equations (PDEs).
- Co-authored manuscript: "Loss Landscape Analysis of Scientific Machine Learning Models" (Y. Hu, H. Lu, Y. Wang, X. Wang, **X. Zhong**, *et al.*) (*Unpublished Manuscript*).

HKUST Undergraduate Research Program (UROP)　Feb 2023 – May 2025
Research Assistant, Advisors: Prof. Hao Chen & PhD Zelin Qiu　*Kowloon, Hong Kong*
- Designed and trained deep learning models for medical image analysis, specifically focusing on accelerating MRI reconstruction using convolutional neural networks.
- Assisted in achieving a comprehensive and stable solution for rebuilding 3D human models from varying 2D MRI slices using deep learning techniques, contributing to a potential open-source library for medical imaging.

WORK EXPERIENCE

StarMerx International Inc.　Jun 2024 – Aug 2024
Trader Intern　*Shenzhen, Guangdong*
- Scraped and analyzed YouTube trend data to inform market strategy, leading to a 15% improvement in ad targeting.
- Engineered optimized ad placement algorithms with Python and Shopify APIs.
- Improved website LCP and customer engagement via UI redesign.

Agricultural Bank of China　Jan 2024 – Feb 2024
IT Intern　*Shenzhen, Guangdong*
- Improved and tested secure eCNY (digital currency) wallet features, supporting a major fintech initiative.

PROJECTS & LEADERSHIP

HKUST RoboMaster Team　Oct 2022 – Jun 2023
Software Engineer　*Kowloon, Hong Kong*
- Built a computer vision system for QR code scanning and target identification using Python and OpenCV for an autonomous robot.
- Programmed low-level motor controls and sensor integration in C++ on embedded hardware.

SAGA Voluntary Teaching Organization　Sep 2022 – Present
Team Leader & Instructor　*Kowloon, Hong Kong*
- Managed and coordinated 200+ volunteer teachers for a non-profit providing education to children with leukemia.
- Designed and taught weekly math and language curriculum, honing leadership and organizational skills.

SKILLS

Programming Languages: Python, C++, SQL
AI Frameworks: PyTorch, TensorFlow, Scikit-learn, OpenCV
Developer Tools: Git, Docker, Slurm, LaTeX
Languages: English (Fluent), Mandarin (Native), Cantonese (Intermediate)