# 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. Yaoging 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).

## 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)