

(Daniel) Shiu-hong KAO

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EDUCATION

- **The Hong Kong University of Science and Technology** Hong Kong S.A.R., China
Bsc in Data Science and Technology / Bsc in Computer Science Aug 2019 - May 2023
GPA: **3.764**, Major GPA: **3.893**
- **Northwestern University** Illinois, USA
Exchange Student in McCormick School of Engineering Mar 2022 - Jun 2022
GPA: **4.000**

ACADEMIC PROJECTS

- **Dynamic Neural Network Comparison: Efficiency and Performance** Sep 2021 - Jan 2022
Supervisor: S.-H. Gary Chan, HKUST
Undergraduate Research Opportunity Program (UROP), HKUST
[DeepLearning, ComputerVision, DynamicNeuralNetwork] Testing, analyzing, and comparing the performance and efficiency across different deep learning models.
- **Practical ML-based Mobile Application** Feb 2021 - Jun 2021
Supervisor: Dimitris Chatzopoulos, HKUST (now in UCD, Ireland)
Undergraduate Research Opportunity Program (UROP), HKUST
[AndroidDevelopment, MachineLearning] Developing an Android app for text classification.
- **AlignKD: A Low-cost Technique for Convolutional Shortcut Removal** Sep 2022 - Dec 2022
Course Title: COMP4471 Deep Learning for Computer Vision
Course project at HKUST
[DeepLearning] Providing a cheap method to remove shortcuts in convolutional neural networks while preserving the performance.

RESEARCH EXPERIENCES

- **Divide and Distill (DnD): Eff. Knowledge Distillation with Higher Acc. and Lower Time Cost**
First Author, under preparation for submission
[DeepLearning, KnowledgeDistillation] Proposing an efficient knowledge distillation framework, which achieves high accuracy with low time costs.
- **Run, Don't Walk: Chasing Higher FLOPS for Faster Neural Networks**
Second Author, under review by **CVPR 2023**
[DeepLearning, ArtificialIntelligence] Proposing a faster and effective separable convolutional layer to improve the performance of existing approaches such as Depthwise Convolution and Group Convolution.
- **Integer Partition: Further Discussion of the Number of the Integer-side Triangles**
First Author, Silver medal at **Yau's Award 2018**
[Combinatorics, DiscreteMath] Analyzing a closed-form solution for a combinatorics problem. Chinese version published by National Taiwanese University.

TEACHING EXPERIENCE

- **Undergraduate Teaching Assistant** Aug 2022 - Dec 2022
Department of Computer Science and Engineering, HKUST
Course: Computer Organization. Responsibility: Assisting with the lab sessions, holding office hours by appointment, providing solutions for in-class exercises.

INTERNSHIP

- **Software Engineer (Summer Intern)** Jun 2021 - Aug 2021
Hong Kong Applied Science and Technology Research Institute
Designing and developing algorithms to solve problems; researching the latest technologies; tasks including image processing, OCR, data parsing, deep learning, etc.
- **Software Developer (Part-time)** Mar 2020 - Jun 2020
Jing Ping Educational Creation Ltd.
Implementing a financial system for the company's use. VBA and Python are involved.

AWARDS

- **Chern Class Scholarship** Academic Year 2020-21
The Hong Kong University of Science and Technology
A special scholarship for students with excellent performance in mathematics.
- **University Scholarship for Continuing Undergraduate Students** Academic Year 2021-22, 2022-23
The Hong Kong University of Science and Technology
Academic scholarship for the students at HKUST whose CGA is in the top 10th percentile of all continuing undergraduate students.
- **Silver Medal, Shing-Tung Yau High School Mathematics Award** Jul 2018
National Taiwan University
National science fair for mathematical research in Taiwan.
- **Dean's List** Fall 2019, Fall 2020, Spring 2021, Fall 2022
The Hong Kong University of Science and Technology
An academic award for a high GPA at HKUST.
- **High Honors** Spring 2022
Northwestern University
An academic award for a full GPA at NU.

EXTRA-CURRICULAR ACTIVITIES

- **Head Student Ambassador** Nov 2022 - Current
Undergraduate Recruitment and Admissions Office, HKUST
Sharing the university life and experience with prospective students; Assisting in admission affairs.
- **Peer Mentor** Aug 2021 - Jun 2022
School of Science, HKUST
Assisting freshmen to adapt the university environment; Holding welcome events.
- **Sub-Committee Member** Sep 2019 - May 2020
Mainland Student and Scholars Society, UG session, HKUST
Assisting executive group with general affairs.
- **Deputy Head Student Ambassador** Nov 2021 - Nov 2022
Undergraduate Recruitment and Admissions Office, HKUST
- **Student Ambassador** Nov 2019 - Current
Undergraduate Recruitment and Admissions Office, HKUST
- **Taiwanese Student Association (TSA, HKUST)** Sep 2019 - May 2023
Member in TSA, HKUST
- **Taiwanese American Student Association (TASA, NU)** Mar 2022 - Jun 2022
Member in TASA, Northwestern University