(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.

- **Press Release Classification on 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: An Accurate, Fast, and Data-efficient Knowledge Distillation Framework**
  First Author, under review by **IJCAI 2023**
  [*DeepLearning, KnowledgeDistillation*] A fast-converging and data-efficient algorithm for knowledge distillation with accuracy higher than state of the art.

- **Run, Don't Walk: Chasing Higher FLOPS for Faster Neural Networks**
  Second Author, under review by **CVPR 2023**
  [*DeepLearning, ArtificialIntelligence*] 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*] A closed-form solution for the number of integer-side quadrilaterals with perimeter m and a recursive relationship for the number the integer-side n-sided polygons with perimeter m.

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