

# (Daniel) Shiu-hong KAO

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## EDUCATION

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- **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: **3.755**, Major GPA: **3.878**
- **Northwestern University** Illinois, USA  
*Exchange Student in McCormick School of Engineering* Mar 2022 - Jun 2022  
GPA: **4.000**

## ACADEMIC PROJECTS

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- **Dynamic Neural Network Comparison: Efficiency and Performance** Sep 2021 - Jan 2022  
Supervisor: Gary Sheung-han 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.

## ACADEMIC RESEARCH

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- **Divide and Distill (DnD): Eff. Knowledge Distillation with Higher Acc. and Lower Time Cost**  
First Author, under submission to conference  
[DeepLearning, KnowledgeDistillation] Proposing an efficient knowledge distillation framework, which achieves high accuracy with low time costs.
- **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.
- **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.

## INTERNSHIP

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- **Undergraduate Teaching Assistant** Aug 2022 - Dec 2022  
*Department of Computer Science and Engineering, HKUST*  
Course: Computer Organization. Responsibility: Holding weekly office hours and assisting in students' coursework.
- **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** Mar 2020 - Jun 2020  
*Jing Ping Educational Creation Ltd.*  
Implementing a financial system for the company's use. VBA and Python are involved.

## AWARDS

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- **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*  
*An academic scholarship for a high GPA during the academic year.*
- **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  
*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

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- **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*