(Daniel) Shiu-hong KAO

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Github: https://github.com/DanielSHKao Website: https://danielshkao.github.io/

EDUCATION

The Hong Kong University of Science and Technology

Bsc in Data Science and Technology / Bsc in Computer Science

GPA: 3.755, Major GPA: 3.878

Northwestern University

Exchange Student in McCormick School of Engineering

GPA: **4.000**

Hong Kong S.A.R., China

Email: skao@connect.ust.hk

Mobile: +886-979-738-568

Aug 2019 - May 2023

Illinois, USA Mar 2022 - Jun 2022

ACADEMIC PROJECTS

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

 $[And roid Development, Machine Learning] \ Developing \ an \ And roid \ app \ for \ text \ classification.$

Academic Research

Divide and Distill (DnD): Eff. Knowledge Distillation with Higher Acc. and Lower Time Cost

First Author, under submission to conference

[DeepLearning, Knowledge Distillation] 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

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

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 Deputy Head Student Ambassador Sep 2021 - Current Undergraduate Recruitment and Admissions Office, HKUST Sharing the university life and experience with prospective students; Assisting in admission affairs. Aug 2021 - Jun 2022 Peer Mentor 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. 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