

# Daniel Shiu-hong KAO

Linkedin: <https://www.linkedin.com/in/danielshkao>

Github: <https://github.com/DanielSHKao>

Website: <https://danielshkao.github.io/>

Email : skao@connect.ust.hk

Mobile : +886 979-738-568

+852 6601-1137

## EDUCATION

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- **The Hong Kong University of Science and Technology** Hong Kong S.A.R., China  
• **MPhil in Computer Science and Engineering** Sep 2023 - May 2025  
Supervisor: Professor Chi-Keung Tang  
Research focus: deep learning, computer vision, graphics
- **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 - Jun 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**

## PUBLICATIONS

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- **Deceptive-NeRF: Enhancing NeRF Reconstruction using Pseudo-Observations from Diffusion Models**  
*Xinhang Liu, Shiu-hong Kao, Jiaben Chen, Yu-Wing Tai, Chi-Keung Tang*  
In submission. Preprint released.
- **Divide and Distill: Achieving Higher Accuracy, Speed and Data-Efficiency for Knowledge Distillation**  
*Shiu-hong Kao, Jierun Chen, S.-H. Gary Chan*  
In submission. Preprint coming soon.
- **Run, Don't Walk: Chasing Higher FLOPS for Faster Neural Networks**  
*Jierun Chen, Shiu-hong Kao, Hao He, Weipeng Zhao, Song Wen, Chul-Ho Lee, S.-H. Gary Chan*  
IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR), 2023
- **Integer Partition: Further Discussion of the Number of the Integer-side Triangles**  
*Shiu-hong Kao, Pohsing Chou, Gerard Jennhwa Chang*  
Silver medal, Yau's Award.

## PROJECTS

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- **Dynamic Neural Network Comparison: Efficiency and Performance** Sep 2021 - Jan 2022  
*Undergraduate Research Opportunities Program (UROP), HKUST*  
Deep Learning, Computer Vision, Dynamic Neural Network
- **Press Release Classification on Mobile Application** Feb 2021 - Jun 2021  
*Undergraduate Research Opportunities Program (UROP), HKUST*  
Android Development, Machine Learning, Natural Language Processing
- **AlignKD: A Low-cost Technique for Convolutional Shortcut Removal** Sep 2022 - Dec 2022  
*Course Title: COMP4471 Deep Learning for Computer Vision*  
Deep Learning, Convolutional Neural Networks

## TEACHING EXPERIENCE

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- **Undergraduate Teaching Assistant** Fall 2022, Spring 2023  
• **Department of Computer Science and Engineering, HKUST**  
*Course: COMP2611 Computer Organization, HKUST*  
- Assisting with the lab sessions, holding office hours by appointment, providing solutions for in-class exercises.

## WORK EXPERIENCE

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- **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 using Python and VBA.

## AWARDS

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- **Chern Class Scholarship** Academic Year 2020-21  
*The Hong Kong University of Science and Technology*  
- 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*  
- Academic award for a high GPA at HKUST.
- **High Honors** Spring 2022  
*Northwestern University*  
- 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*
- **Peer Mentor** Aug 2021 - Jun 2022  
*School of Science, HKUST*
- **Sub-Committee Member** Sep 2019 - May 2020  
*Mainland Student and Scholars Society, UG session, HKUST*
- **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*

## SKILLS

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- **Programming:** Python, C/C++, Java, VBA, Matlab, R, HTML/CSS, Assembly
- **Tools:** PyTorch, PySpark, Hadoop, Pandas, Matplotlib, OpenCV, BeautifulSoup, LaTeX, Git, Unix/Linux, AWS, Azure
- **Languages:** English (Proficient), Mandarin (Native), Cantonese (Intermediate), Taiwanese (Native)