JIERUN CHEN

jierunchen@gmail.com +852 51053563, +86 15813521880 Homepage: https://jierunchen.github.io
Research Interest: AIGC, Vision Language Models, Efficient AI, Compression, and Acceleration

EDUCATION

The Hong Kong University of Science and Technology *Sep 2019 - Present*
Ph.D. in Computer Science and Engineering Expected graduation in Dec 2024
Supervisor: Shueng-Han Gary Chan

Zhejiang University *Sep 2014 - June 2018*
B.Eng in Electrical Engineering and Automation , GPA: 3.8 / 4.0, Top 15%
High Distinction from Edison Experimental Class

Singapore University of Technology and Design *Sep 2016 - Dec 2016*
Exchange Student in Engineering Product Design , GPA: 5.0 / 5.0, Top 3%

WORKING EXPERIENCE

Snap Research, Los Angeles *Feb 2024 - Aug 2024*
Research intern on efficient text-to-image models, supervised by Jian Ren and Anil Kag

Microsoft Research Asia, Beijing *June 2023 - Feb 2024*
Research intern on multimodal large models, supervised by Fangyun Wei

Unity Drive Innovation, Shenzhen *Sep 2018 - Jan 2019*
SLAM algorithm intern, supervised by Qinghai Liao

PUBLICATIONS

1. SnapGen: Taming High-Resolution Text-to-Image Models for Mobile Devices with Efficient Architectures and Training
Jierun Chen*, Dongting Hu*, Xijie Huang*, Huseyin Coskun, Arpit Sahni, Aarush Gupta, Anujraaj Goyal, Dishani Lahiri, Rajesh Singh, Yerlan Idelbayev, Junli Cao, Yanyu Li, Kwang-Ting Cheng, S.-H. Gary Chan, Mingming Gong, Sergey Tulyakov, Anil Kag, Yanwu Xu, Jian Ren
In submission, 2024

2. Revisiting Referring Expression Comprehension Evaluation in the Era of Large Multimodal Models
Jierun Chen*, Fangyun Wei*, Jinjing Zhao, Sizhe Song, Bohuai Wu, Zhuoxuan Peng, S.-H. Gary Chan, Hongyang Zhang
In submission, 2024

3. FasterKD: Disentangling Inter-block Optimization for Efficient Knowledge Distillation
Shiu-hong Kao*, **Jierun Chen***, S.-H. Gary Chan
In submission, 2024

4. AsCAN: Asymmetric Convolution-Attention Networks for Efficient Recognition and Generation
Anil Kag, Huseyin Coskun, **Jierun Chen**, Junli Cao, Willi Menapace, Aliaksandr Siarohin, Sergey Tulyakov, Jian Ren
NeurIPs, 2024

5. Run, Don't Walk: Chasing Higher FLOPS for Faster Neural Networks **700+ stars**
Jierun Chen, Shiu-hong Kao, Hao He, Weipeng Zhuo, Song Wen, Chul-Ho Lee, S.-H. Gary Chan
CVPR, 2023

6. TVConv: Efficient Translation Variant Convolution for Layout-aware Visual Processing
   Jierun Chen, Tianlang He, Weipeng Zhuo, Li Ma, Sangtae Ha, S.-H. Gary Chan
   CVPR, 2022

7. Joint Demosaicking and Denoising in the Wild: The Case of Training Under Ground Truth Uncertainty
   Jierun Chen, Song Wen, S.-H. Gary Chan
   AAAI, 2021

8. Target-agnostic Source-free Domain Adaptation for Regression Tasks
   Tianlang He, Zhiqiu Xia, **Jierun Chen**, Haoliang Li, S.-H. Gary Chan
   ICDE, 2024

9. CP-NeRF: Conditionally Parameterized Neural Radiance Fields for Cross-scene Novel View Synthesis
   Hao He, Yixun Liang, Shishi Xiao, **Jierun Chen**, Yingcong Chen
   Pacific Graphics, 2023

10. FIS-ONE: Floor Identification System with One Label for Crowdsourced RF Signals
    Weipeng Zhuo, Ka Ho CHIU, **Jierun Chen**, Ziqi Zhao, S.-H. Gary Chan, Sangtae Ha, Chul-Ho Lee
    ICDCS, 2023

11. Semi-supervised Learning with Network Embedding on Ambient RF Signals for Geofencing Services
    Weipeng Zhuo, Ka Ho CHIU, **Jierun Chen**, Jiajie Tan, Edmund Sumpena, Sangtae Ha, S.-H. Gary Chan, Chul-Ho Lee
    ICDE, 2023

PATENT

US patent, Ref.: IP.PA.01826, IIL Ref.: P2651US00, "Run, Don't Walk: Chasing Higher FLOPS for Faster Neural Networks"

SELECTED AWARDS

- RedBird Academic Excellence Award, HKUST, 2022
- Postgraduate Scholarship, HKUST, 2019-2023
- Outstanding Graduate, ZJU, 2018
- Scholarship for Excellence in Research and Innovation, ZJU, 2017
- 1st prize in Nanjiang Lebo Cup Provincial Robot Competition (ranked 1/62), 2017
- 1st prize in National Undergraduate Electronic Design Contest (ranked 3/109 in Zhejiang Division), 2017
- Scholarship for Outstanding Merits, ZJU, 2015, 2017
- Excellent Student Awards, ZJU, 2015, 2017

TEACHING ASSISTANT

- COMP 2012H Honors Object-Oriented Programming and Data Structures, Fall 2022
- COMP 4911/6613D/ENTR4911 IT Entrepreneurship, Fall 2021
- COMP 4021 Internet Computing, Fall 2020
- COMP 4611 Design and Analysis of Computer Architectures, Spring 2020

ACADEMIC SERVICES

Conference Reviewer: ICLR, CVPR, ECCV, ICCV, UbiComp, BMVC, ACCV, INFOCOM

Journal Reviewer: IJCV, TIM

SKILLS

- Programming: Python, PyTorch, C/C++, Matlab, HTML, CSS, JavaScript.
- Tools: Unix, Git, Docker, LaTex, Photoshop, ROS, SolidWorks.
- Languages: English (Proficient), Mandarin (Native), Cantonese (Proficient), Teochew (Native).