

Ching Lam CHOI

Year 4, AI Engineering, CUHK (Major GPA: 3.676/4.000)

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LinkedIn

Homepage

GitHub

Google Scholar

RESEARCH

Publications

- R. Liu, Y. Ge, C. L. Choi, X. Wang, and H. Li, "Divco: Diverse conditional image synthesis via contrastive generative adversarial network," in *Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR)*, 2021, pp. 16 377–16 386.

Pre-Prints

- C. L. Choi and A. Duplessis, "Pfade: Path feature attributions via debiased explanations," *In submission*, 2023.
- C. L. Choi and F. Farnia, "On the generalization of gradient-based neural network interpretations," *In submission*, 2023.
- C. L. Choi and F. Farnia, "Universal adversarial directions," *arXiv preprint arXiv:2210.15997*, 2022.
- Y. Ge, X. Zhang, C. L. Choi, et al., "Self-distillation with batch knowledge ensembling improves imagenet classification," *arXiv preprint arXiv:2104.13298*, 2021.

EXPERIENCE

Research Intern

[Mila—Québec Artificial Intelligence Institute](#)

May – Aug 2023

Montréal, Canada

- Collaborators: Yann Dauphin & Aaron Courville.
- Iterative dropout quantization during training.

Research Intern

[Max Planck Institute for Intelligent Systems](#)

Jan – Apr 2023

Tübingen, Germany

- Collaborators: Wieland Brendel & Yash Sharma.
- Worked on sparse adversarial attacks/training for preserving clean accuracy, reducing the adversarial generalization error and improving computational efficiency.

Research Intern (remote)

[Stanford AI Lab](#)

Jan – Jun 2022

Stanford University, USA

- Worked with Jiajun Wu on scene understanding via image intrinsics and Neural Radiance Fields (NeRFs).

Research Intern

[NVIDIA AI Tech Center](#)

Sep 2020 – Oct 2021

NVIDIA, HK

- Worked with Ming-Yu Liu, Arun Mallya, Ting-Chun Wang on improving Face Vid2Vid for audio-driven video synthesis.
- Worked with Charles Cheung, Simon See on explainable GANs.

Research Student

[Multimedia Laboratory \(MMLab\)](#)

Aug 2019 – Aug 2022

CUHK, HK

- Mentored by Hongsheng Li; worked on self-supervised Learning, Generative models, fine-grained video understanding.

Research Assistant

[Theoretical Machine Learning Lab](#)

Jan 2022 – Present

CUHK, HK

- Collaborating with Farzan Farnia; researching adversarial training and robustness; understanding generalisation; MixUp.

ASPIRATIONS

Research Interests. To reconcile different notions of robustness in CV & ML; tackling the data bottleneck with better data and models. **Why?** Robustness under noisy settings (e.g. label noise, distributional shifts, adversarial noise) are realistic scenarios that connect theory to practice, shedding light on when our DL systems succeed and fail.

5+ Year Plan. PhD in CV & ML then academia.

INITIATIVES

- Co-organised the **New in ML** workshop at NeurIPS '23, with talks and panels on AI ethics, academic writing, career planning in industry/academia.
- Co-organised the **CoSubmitting Summer** workshop at ICLR '22: funded & mentored 55 research projects from underprivileged minorities.
- Co-organised the **Undergraduates in Computer Vision Social** at ICCV '21; shared insights on breaking into research in academia / industry.
- Reviewer:** CVPR '23, ICCV '23, NeurIPS '23, ICLR '24, CVPR '24, ICML '24.

REFEREES

Prof. Hongsheng Li

@ Associate Professor, EE, CUHK

✉ hsl@ee.cuhk.edu.hk

Dr. Wieland Brendel

@ Group Leader, Max Planck (MPI-IS), ELLIS

✉ wieland.brendel@tuebingen.mpg.de

Prof. Aaron Courville

@ Professor & CIFAR CAI Chair, MILA

✉ courville@iro.umontreal.ca

SELECT AWARDS

Google Code-In 2019: **Runner-Up** |
2nd International Artificial Intelligence Fair (Sensetime): **1st Prize** |
5th International Invention Innovation Competition in Canada: **Best 10 Women Inventors + Special Award + Gold Medal** |
5th International Mathematical Modelling Challenge (IMMC): **1st Class Honours**

SKILLS

English

Cantonese

Mandarin

AI

Computer Vision

Machine Learning

Python

PyTorch

Julia