# CHOI Ching Lam

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Google Scholar github.com/chinglamchoi | linkedin.com/in/ching-lam-choi/

#### EDUCATION

The Chinese University of Hong Kong (CUHK)

BEng in Artificial Intelligence: Systems & Technologies (AIST)

Diocesan Girls' School

GPA: 3.751 / 4.000 Sep 2015 – Jul 2020

Sep 2020 – Present

Diocesan Giris' School

Deeplearning.ai, Coursera

 $May\ 2018$ 

The Deep Learning Specialization: https://coursera.org/share/79cb80a49acd6d0fe866c9d61702362c

# Publications & Pre-Prints

[1] Rui Liu, Yixiao Ge, **Ching Lam Choi**, Xiaogang Wang and Hongsheng Li, "DivCo: Diverse Conditional Image Synthesis via Contrastive Generative Adversarial Network", in CVPR, 2021

[2] Yixiao Ge, Xiao Zhang, Ching Lam Choi, Ka Chun Cheung, Peipei Zhao, Feng Zhu, Xiaogang Wang, Rui Zhao, Hongsheng Li. "Self-distillation with Batch Knowledge Ensembling Improves ImageNet Classification." arXiv preprint arXiv:2104.13298 (2021)

# Work & Research Experience

Topics: Adversarial training and robustness, self-supervised learning (SSL), generative modeling

Stanford AI Lab (SAIL), Stanford University: Research Intern

Dec 2021 - Present

- Advisor: Professor Jiajun Wu
- Focus: Scene understanding via Neural Radiance Fields (NeRFs); generalisable, transferable NeRFs

# Multimedia Laboratory, CUHK: Research Mentee

Aug 2019 – Present

- Advisor: Professor Hongsheng Li
- Focus: Self-supervised Learning, Generative models, fine-grained video understanding

#### NVIDIA AI Tech Center: Research Intern

Sep 2020 – Oct 2021

- Advisors/Collaborators: Dr. Charles Cheung, Dr. Simon See
- Focus: Audio-visual video understanding; robust, explainable Generative Adversarial Networks

#### CUHK UG Summer Research: Intern

Jun - Aug 2021

- Advisor: Professor Anthony Man-Cho So
- Focus: Deep metric-learning for improving DNN generalisation and robustness

# CityU Apps Lab, City University of Hong Kong: Summer Lab Intern

Jul 2018 – Sep 2018

- Co-developed learning materials (Python, Tensorflow, linear algebra basics) for CityU's AI Summer Course
- Co-taught & TA'd the AI Summer Course
- Introduced MIT App Inventor to aspiring secondary school teachers through Teach4HK

#### Professional Volunteering & Services

### ICCV 2021 Undergraduates in Computer Vision Social: Co-organiser & Panelist

Sep - Oct 2021

- Co-organised the UG in CV Social (inc. 4 keynotes, 1 student panel, 1 mingling/networking session) with Samarth Sinha; presented on breaking into and publishing research as an undergraduate.
- Keynote speakers Prof. Animesh Garg, Prof. Hugo Larochelle, Prof. Zeynep Akata, Dr. Nan Rosemary Ke shared insights and answered audience's questions on CV research in academia and the industry.

# ICLR 2022 CoSubmitting Summer Workshop: Co-organiser

Aug 2021 - Apr 2022

• Co-organised the CSS Workshop with ICLR DEI Co-chairs Rosanne Liu & Krystal Maughan and more

• CSS supported 55 research proposals by underrepresented groups in ML and first-time ICLR submitters, and provided funding to execute their ideas.

# EuroPython 2020: Speaker

24 Jul 2020

- Talk: Corona-Net: Fighting COVID-19 With Computer Vision
- Second-largest Python conference in the world (https://ep2020.europython.eu/talks/HeAc9o4-corona-net/)

# JuliaCon 2020: Speaker

31 Jul 2020

- Talk: Julia Track Google Code In and Beyond
- Online conference with over 10,000 unique attendees (https://juliacon2020.now.sh/talk/HJTZNE)

#### Student Code-in 2020: Mentor

Jun 2020 - Aug 2020

• Mentored students in the 2-months long programme for the Face Mask Detection project, a Computer Vision system based on OpenCV, Tensorflow and Keras (github.com/chandrikadeb7/Face-Mask-Detection)

# PROJECTS

Corona-Net | Python: PyTorch, NumPy, Matplotlib; Julia: Flux, Images, CuArrays; Git Mar 2020 – Jul 2020

- Leveraging U-Net and Efficient-Net for CT COVID-19 segmentation and classification
- Python: (github.com/chinglamchoi/Corona-Net); Julia: (github.com/chinglamchoi/JuliaCon)

## MAESTRO.ai TaiChi Tutor | Tensorflow.js, Bootstrap, Node.js, Git

 $Jul \ 2019 - Jan \ 2020$ 

- Leveraged Tensorflow.js PoseNet model for real-time 2D Human Pose Estimation
- Bridging the intergenerational communication gap in HK through TaiChi

Elesafer | Python, C++, Darknet, Django

Jul 2018 – May 2019

• Build dataset for and trained YOLOv3 for real-time detection weapons (guns, knives) in CCTV footage

## AWARDS & RECOGNITION

# Google Code In 2019: Runner-up

Dec 2019 - Jan 2020

Google & The Julia Programming Language

- Created a second order ordinary differential equations (ODE) solver using Neural Networks
- Code open-sourced at: github.com/chinglamchoi/GCI\_With\_Julia

The 2nd International Artificial Intelligence Fair: First Prize, Academic Scholarship

Aug 2020

Sensetime

• IAIF included 1,000+ projects from China, USA, India, Singapore, Singapore, HK, etc

# The 5th International Invention Innovation Competition in Canada (iCan 2020):

Aug 2020

Best 10 Women Inventors, Special Award (TISIAS), Gold Medal

Toronto International Society of Innovation & Advanced Skills (TISIAS)

# Google Hash Code 2020 Online Qualification Round:

Oct 2020

14th in Hong Kong, 2531/10724 worldwide

Google

NASA SpaceApps Challenge 2020: HK global nominee, Best Use of Data Award, Most

Oct 2020

Inspirational Award

NASA, US Consulate General HK & Macau, Hong Kong Observatory, City University of Hong Kong

International Symposium on STEM Education 2019: Best Project Champion,

25 - 28 Jul 2019

Outstanding Performance Award, Academic Scholarship

Microsoft, The University of Hong Kong & HKU Academy for the Talented

# The 5th International Mathematical Modelling Challenge: First-class Honours

Aug 2020

 $(International\ Round\ +\ Greater\ China\ Winter\ Contest),\ Second-class\ Honours\ (Greater\ China\ Winter\ Contest),\ Second-class\ Honours\ (Greater\ China\ Winter\ Contest))$ 

China Autumn Contest)

International Mathematical Modelling Challenge

#### TECHNICAL SKILLS

Languages: English, Mandarin, Cantonese, Python, Julia, C, JavaScript, HTML/CSS

Libraries: PyTorch, NumPy, Matplotlib, Pandas, FluxML, SciML, JQuery