

CHOI Ching Lam

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EDUCATION

The Chinese University of Hong Kong (CUHK)	Sep 2020 – Present
<i>BEng in Artificial Intelligence: Systems & Technologies (AIST)</i>	GPA: 3.803 / 4.000
Diocesan Girls' School	Sep 2015 – Jul 2020
Deeplearning.ai, Coursera	May 2018
The Deep Learning Specialization : https://coursera.org/share/79cb80a49acd6d0fe866c9d61702362c	
Hong Kong Academy for Gifted Education	Jan 2016 – Jul 2020

PUBLICATIONS

- [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, **Ching Lam Choi**, Xiao Zhang, Peipei Zhao, Feng Zhu, Rui Zhao, and Hongsheng Li. “Self-distillation with Batch Knowledge Ensembling Improves ImageNet Classification.” arXiv preprint arXiv:2104.13298 (2021), submitted to **ICCV 2021**

WORK & RESEARCH EXPERIENCE

Topics: *Audio-visual video understanding & generation, self-supervised learning (SSL), generative modeling*

UG Summer Research : Intern Jun – Aug 2021

- Supervisor: Professor Anthony MC So
- Focus: Deep metric-learning for improving DNN generalisation and robustness

NVIDIA AI Tech Center : Research Intern Sep 2020 – Present

- Supervisors/Collaborators: Dr. Ming-Yu Liu, Dr. Arun Mallya, Dr. Ting-Chun Wang
- Focus: Audio-visual video understanding; robust, explainable Generative Adversarial Networks

Multimedia Laboratory, CUHK : Research Mentee Aug 2019 – Present

- Supervisor: Professor Hongsheng Li
- Focus: Self-supervised Learning, Generative models, fine-grained video understanding (inc. video captioning, text-to-video retrieval)

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

VOLUNTEERING EXPERIENCE

EuroPython 2020 : Speaker 24 Jul 2020

- Talk (30 min): 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)

Hong Kong Open Source Conference (HKOSCon) 2020: *Speaker*

13 Jun 2020

- Talk (30 min): Julia – Looks like Python, feels like Lisp, runs like C/Fortran (<https://youtu.be/VKcwnHJm2V0>)

Python Conference Hong Kong (PyCon) 2020: *Speaker*

8 May 2020

- Talk (30 min): Fighting COVID-19 with Machine Learning (<https://youtu.be/cd1j25JxOJc>)

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 Inspirational Award Oct 2020*NASA, US Consulate General HK & Macau, Hong Kong Observatory, City University of Hong Kong***International Symposium on STEM Education 2019:** Best Project Champion, Outstanding Performance Award, Academic Scholarship 25 – 28 Jul 2019*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 Autumn Contest)

*International Mathematical Modelling Challenge***FIRST Tech Challenge (FTC):** HK: Inspire Award Finalist, Semi-Finalist Alliance 2019*FIRST, The Hong Kong University of Science and Technology*

TECHNICAL SKILLS**Languages:** English, Mandarin, Cantonese, Python, Julia, C, JavaScript, HTML/CSS**Libraries:** PyTorch, NumPy, Matplotlib, Pandas, FluxML, SciML, JQuery