Kelvin Cheng

1730 Varsity Dr., Raleigh, NC, United States, 27606 (919) 937 6966 Lkbcheng@ncsu.edu

CITIZENSHIP Canadian

RESEARCH INTERESTS Computer Vision, Machine Learning, Deep Learning, Natural Language Processing, Data Science

PROFESSIONAL EXPERIENCES

ABB, Raleigh, United States, Summer 2020 Research Intern – Computer Vision and Perception

KPMG, Guangzhou, China, Summer 2013

Summer Intern - Consulting

EDUCATION

North Carolina State University, United States, 2019–2023

PhD (in progress), Department of Computer Science

Advisor: Tianfu Wu, PhD

Simon Fraser University, Vancouver, Canada, 2015–2019

MSc, Department of Computing Science

- Advisors: Ping Tan, PhD
- Thesis title: A Neural Network for Monocular Point Cloud Estimation of Humans

Simon Fraser University, Vancouver, Canada, 2010–2015

BSc, Department of Computing Science

Bachelor's degree in Computing Science, specialize in Artificial Intelligence

PUBLICATIONS

Publications:

Sicong Tang*, Feitong Tan*, Kelvin Cheng, Zhaoyang Li, Siyu Zhu, Ping Tan. A Neural Network for Detailed Human Depth Estimation from a Single Image (*oral presentation*). *International Conference on Computer Vision (ICCV)* Seoul, South Korea, Oct. 2019.

Working papers:

- Kelvin Cheng, Christopher Healey, Tianfu Wu. Towards Adversarially Robust and Domain Generalizable Stereo Matching by Rethinking DNN Feature Backbones. 2020.
- Kelvin Cheng, Christopher Healey, Tianfu Wu. Neural Volume Rendering based Self-Supervised Stereo Matching. 2021.

Theses:

 Kelvin Cheng. A Neural Network for Monocular Point Cloud Estimation of Humans. Master's thesis, Simon Fraser University, 2019.

PRESENTATIONS

Note that a dagger denotes refereed conference presentations given by a coauthor.

Sicong Tang, Feitong Tan, Kelvin Cheng, Zhaoyang Li, Siyu Zhu, Ping Tan. A Neural Network for Detailed Human Depth Estimation from a Single Image.

■ International Conference on Computer Vision (ICCV)[†], Seoul, South Korea, Nov 1, 2019.

SCHOLARSHIPS

- University Graduate Fellowship, North Carolina State University, 2019–2020 (\$US 4,000)
- NSERC Undergraduate Student Research Awards, 2015 (\$CAD 5,740)

OTHER RESEARCH PROJECTS

- Adaptable Deep Learning Based Depth Refinement for Infrared Stereo Cameras (ABB, 2020)
- Volumetric Reconstruction of Deformable Objects from RGB-D Images (SFU, 2018)
- Non-rigid Structure from Motion of Fabrics (SFU, 2017)

TECHNICAL SKILLS

- Programming: Python, C++, C, MATLAB, R, Stata, Julia, JavaScript, Java, VBA
- Libraries: PyTorch, CUDA, TensorFlow, Pandas, OpenGL/WebGL, NLTK, Numpy

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REVIEWING ACTIVITIES

■ IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR) 2022

LANGUAGES

- Cantonese (native)
- Mandarin (native)
- English (fluent)