MANGTIK CHIU

mtchiu2@illinois.edu | mtchiu1003@gmail.com | mtchiu.github.io

EDUCATION University of Illinois at Urbana-Champaign

Master of Computer Science (Research)

University of California, Davis Sep 2016 – Dec 2016

Overseas Exchange

• Relevant coursework: Machine Learning, Computer Graphics

Hong Kong University of Science and Technology

Bachelor of Engineering in Computer Science, minor in Big Data Technology GPA: 3.71/4.30

• Relevant coursework: Computer Vision, Deep Learning for Computer Vision

• Final year thesis: "Emotion sensing with wearable devices"

PUBLICATION "Emotion Recognition through Gait on Mobile Devices", PerCom EmotionAware 2018

Mar 2018

Sep 2018 -

GPA: 3.85 / 4.00

Sep 2014 – May 2018

Minor GPA: 4.12/4.30

Main author

RESEARCH UIUC Image Formation and Processing Group

Sep 2018 –

Research Assistant - Computer Vision/Deep Learning

- Surveyed approaches in aerial image object detection and weed detection in farmlands
- · Introduced novel agriculture dataset and implemented 2-level dataset generation pipeline for DL tasks
- Trained and compared DenseNet performance for weed classification at 71% accuracy with commercial software
- Visualized classification model results using Class Activation Mapping
- Authored conference paper submission

Hong Kong University of Science and Technology

Jun 2018 - Nov 2018

Junior Research Assistant - Computer Vision/Deep Learning

- · Researched on high-resolution pose transfer and extreme makeup transfer using CNNs and GANs
- Surveyed approaches in network disentanglement, detailed style-transfer and pose-guided image generation
- Proposed and assisted implementations of self-proposed networks
- Co-authored two conference paper submissions

HKUST-DT System and Media Laboratory (SyMLab)

Jun 2018 – Aug 2018

Research Assistant – Mobile Computing

- · Trained SVM with OpenCV and modified VGG-16 with Tensorflow for mobile emotion classification
- Tested and compared model and system performances by implementing on-device model inference
- Co-authored journal paper submission

HKUST Undergraduate Research Opportunity Program

Feb 2017 – Aug 2017

Undergraduate researcher

- Collected visual gait data under emotional states in a standardized procedure
- Trained emotion classification models from video gait data to classify 5 emotions at 74% accuracy
- Integrated server-mobile system for mobile data acquisition, data pre-processing and prediction feedback

EXPERIENCE

Signal Communication Ltd

Jul 2016 - Aug 2016

Engineering trainee

- Implemented Hole-Punching paper and other features on company-constructed software system
- Effectively communicated with team leader on challenges and solutions

HKUST Robotics Team, ROV

Sep 2015 - Jun 2016

Head of software & Secretary

- Constructed underwater robot control, communication and vision system using ROS and OpenCV
- · Guided and managed tasks for software team members and coordinated progress of the whole team

SKILLS

Programming languages

- Familiar: Python, C++
- Intermediate: Java/Android, MATLAB/Octave, BASH

Frameworks

• numpy, scikit-learn, matplotlib, OpenCV, OpenGL, PyTorch, Tensorflow

Language

• English (Proficient), Cantonese (Native), Mandarin (Native)