MANGTIK CHIU

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EDUCATION

University of Illinois at Urbana-Champaign **– May 2020**
Master of Computer Science

Hong Kong University of Science and Technology **Sep 2014 – May 2018**
Bachelor of Engineering in Computer Science, minor in Big Data Technology Major GPA: 3.70/4.30
- Relevant coursework: Computer Vision, Deep Learning for Computer Vision Minor GPA: 4.12/4.30
- Final year thesis: *"Emotion sensing with wearable devices"*

University of California, Davis **Sep – Dec 2016**
Overseas Exchange GPA: 3.85 / 4.00
- Relevant coursework: Machine Learning, Computer Graphics

PUBLICATION

***"Emotion Recognition through Gait on Mobile Devices",* PerCom EmotionAware 2018** **Mar 2018**
Main author

RESEARCH

Hong Kong University of Science and Technology **Jun 2018 – Aug 2018**
Junior Research Assistant – Computer Vision/Deep Learning (on-going)
- Researching on video stabilization using deep reinforcement learning, clothing transfer and makeup transfer using deep convolutional networks and GANs
- Surveyed current state-of-the-art approaches in video stabilization, reinforcement learning, detail-preserved style-transfer and unsupervised landmark detection for transfer guidance
- Collected makeup and clothing data, evaluated performances of re-implemented and modified networks

HKUST-DT System and Media Laboratory (SyMLab) **Jun 2018 – Aug 2018**
Research Assistant – Mobile Computing (on-going)
- 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

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 from video gait data to classify 5 emotions at 74.39% accuracy
- Analyzed performances of various machine learning models e.g. MLP, SVM, Naïve Bayes, etc.
- Integrated server-mobile system for mobile data acquisition, data pre-processing and model feedback

EXPERIENCE

Harvard-HKUST Summer Design Experience **Jun 2017 – Jul 2017**
Software team member
- Designed personal electric vehicle control software and researched on autonomous driving techniques
- Cooperated with team members on software, electrical and mechanical design to maximize productivity

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

Software/hardware
- Proficient: C/C++, Python
- Intermediate: Java/Android, MATLAB/Octave, BASH, Arduino, Raspberry Pi

Framework/system
- Proficient: numpy, scikit-learn, matplotlib, Linux
- Intermediate: OpenCV, OpenGL, Tensorflow, ROS, WinAPI, Visual Studio

Language
- English (Proficient)**,** Cantonese (Native), Mandarin (Native)