

Cheng-Han Lee

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EDUCATION

- **National Taiwan University** Taipei, Taiwan
Master of Computer Science; GPA: 4.03 / 4.30 Sep. 2016 – Aug. 2018
- **National Chiao Tung University** Hsinchu, Taiwan
Bachelor of Electrical Engineering; CS related GPA: 3.86 / 4.30 Sep. 2012 – June. 2016

WORK EXPERIENCE

- **SenseTime Ltd.** Shenzhen, China
Research Intern, supervised by Prof. Ping Luo, Dr. Ziwei Liu, and Dr. Ruimao Zhang Sep 2018 - April 2019
 - **CelebAMask-HQ [500+ stars, 80+ forks]**[\[link\]](#): (1) We present MaskFaceGAN for diverse and interactive face manipulation. (2) We contribute CelebAMask-HQ, a large-scale high-resolution face dataset with mask annotations.
 - **Switchable Normalization on Generative Adversarial Network**: To increase the stability of GAN, we discover the probability of learning to select different normalizers (e.g. layer normalization, instance normalization, and spectral normalization) for different layers of a discriminator by meta-learning.
- **National Taiwan University** Taipei, Taiwan
Research and Teaching Assistant, supervised by Prof. Winston H. Hsu Sep 2016 - Aug 2018
 - **Research Assistant - Communications and Multimedia Lab**: Research mainly focuses on deep learning, generative model and low-level vision including super-resolution on facial images and image synthesis.
 - **Teaching Assistant**: Linear Algebra (2017 Fall), Digital System Design and Laboratory (2017 Spring, **Outstanding TA Award**)), and Seminar Class (2016 Fall).
- **QNAP Systems** Taipei, Taiwan
Software Engineering Intern, supervised by Mr. Paul Chu July 2016 - Aug 2016
 - **Implement an universal cloud client of Slack**: Integrate the application of QNAP NAS (Network-Attached Storage), Connect To Cloud Drive, with Slack. Enable users to synchronize files between Slack and QNAP NAS.

PUBLICATIONS & RESEARCH PROJECTS

- **MaskFaceGAN: Towards Diverse and Interactive Facial Image Manipulation** [\[link\]](#)
Cheng-Han Lee, Ziwei Liu, Lingyun Wu, Ping Luo CVPR-2020
- **PIVITONS : Pose Invariant Virtual Try-on Shoes with Conditional Image Completion** [\[link\]](#)
Chao-Te Chou, Cheng-Han Lee, Kaipeng Zhang, Hu-Cheng Lee, Winston H. Hsu ACCV-2018(Oral)
- **Attribute Augmented Convolutional Neural Network for Face Hallucination** [\[link\]](#)
Cheng-Han Lee, Kaipeng Zhang, Hu-Cheng Lee, Chia-Wen Cheng, Winston H. Hsu CVPRW-2018
- **Drone-View Building Identification by Cross-View Visual Learning** [\[link\]](#)
Chun-Wei Chen, Yin-Hsi Kuo, Tang Lee, Cheng-Han Lee, Winston H. Hsu CVPRW-2018

SELECTED PROJECTS

- **Loss Functions for Face Image Super Resolution with Neural Network**: Discuss six combinations of loss function for $8\times$ scales face image super resolution problem (NTU CS MLDS course) [\[link\]](#)
- **House Monitor - A Real-Time Surveillance Android App**: Users can control the angle of a remote camera and see real time video of house on a mobile phone. (NCTU CS embedding system course, be elected as 1st price in final project competition) [\[link\]](#)
- **Intelligent Speech Emotion Recognition Android App**: Users can record a piece of voice and identify its emotion on a mobile phone. (NCTU EE spacial project course, supervised by Prof. Jen-Tzung Chien) [\[link\]](#)

PROGRAMMING SKILLS

- **Languages:** Python, C/C++, Java, Matlab
- **Toolkits:** Pytorch, Tensorflow, Caffe, Latex, CUDA, OpenCL, Android SDK
- **Platforms:** Linux, Vim, Git

RELATED COURSES

- **Fundamental Courses:** Introduction to Computer and Programming (A, NCTU EE), Advanced Object-Oriented Programming (A-, NCTU EE), Data Structures (A, NCTU CS), Algorithms (A, NCTU EE), Operating System (A+, NCTU EE), Computer Organization (A-, NCTU EE)
- **Multimedia and Machine Learning:** Computer Vision (A+, NTU CS), Introduction to Digital Speech Processing (A, NTU CS), Music Signal Analysis and Retrieval (A+, NTU CS), Advanced Topics in Multimedia Analysis and Indexing (A+, NTU CS), Machine Learning (A-, NTU EE), Machine Learning and Having It Deep and Structured (A-, NTU EE)
- **System:** Introduction to Computer Network (A+, NCTU CS), Introduction to Embedded System (A+, NCTU CS), Parellel Programming (A+, NTU CS)

REFERENCES

- **Research menter - Ziwei Liu:** Research Fellow, CUHK, zwliu.hust@gmail.com [[link](#)]
- **Research menter - Ruimao Zhang:** Research Fellow, CUHK, zhangruimao@sensetime.com [[link](#)]
- **Research menter - Ping Luo:** Assistant Professor, HKU, pluo.lhi@gmail.com [[link](#)]
- **Master advisor - Winston H. Hsu:** Professor, NTU (Taiwan), whsu@ntu.edu.tw [[link](#)]