Cheng-Han Lee

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EDUCATION

- **National Taiwan University** — Taipei, Taiwan
  Master of Science in Computer Science; GPA: 4.03 / 4.30 — *Sep. 2016 – Aug. 2018*

- **National Chiao-Tung University** — Hsinchu, Taiwan
  Bachelor of Engineering in Electrical and Electronics; 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](link) — *Sep 2018 - March 2019*
  - **CelebAMask-HQ [450+ stars, 70+ forks][link]**: (1) We present MaskGAN 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](link) — *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](link) — *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

- **MaskGAN: Towards Diverse and Interactive Facial Image Manipulation** [link]
  ***Cheng-Han Lee**, Ziwei Liu, Lingyun Wu, Ping Luo* **Submit to 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 competion) [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)) [link]

PROGRAMMING SKILLS

- **Languages**: Python, C/C++, Java, Matlab

- **Toolkits**: Pytorch, Tensorflow, Caffe, Latex, CUDA, OpenCL, Android SDK

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**: Senior Researcher, SenseTime, 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]