Yen-Chi Cheng

Curriculum Vitae

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Education

Sept 2017–June 2018 **National Taiwan University**, *Finance (Non-matriculated Status)*, Taipei, Taiwan.
GPA: 4.30/4.30 (CS related), 4.17/4.30 (Overall)
Ranking: 5/72 (top $\sim 6\%$)
Computer Science Courses:
Data Structures and Algorithms, Algorithms, Operating System, Structure and Interpretation of Computer Programs, Discrete Math and Probability, Linear Algebra, Introduction to Computer Science, Machine Learning Foundation, Machine Learning Techniques

2017 **University of California, Berkeley**, *Computer Science*, Berkeley, CA, USA.
GPA: 3.85/4.00, Summer Session

Sept 2011–June 2015 **National Taiwan University**, *B.A. in Economics*, Taipei, Taiwan.
GPA: 4.04/4.30 (Last Year)

Selected Publications

ICCV 2019 **Point-to-Point Video Generation**

Yen-Chi Cheng*, Tsun-Hsuan Wang*, Chieh Hubert Lin, Hwann-Tzong Chen and Min Sun

IEEE International Conference on Computer Vision (**ICCV**), 2019

paper code project

(* indicates equal contribution)

NeurIPSW 2018 **Radiotherapy Target Contouring with Convolutional Gated Graph Neural Network.**

Chun-Hung Chao, **Yen-Chi Cheng**, Hsien-Tzu Cheng, Chi-Wen Huang, Tsung-Ying Ho, Chen-Kan Tseng, Le Lu and Min Sun

Machine Learning for Health Workshop at Neural Information Processing Systems (**NeurIPS**), 2018

Spotlight (Acceptance Rate: $\sim 6\%$) paper

Work Experiences

Sept 2019–Present **University of California, Merced, Vision and Learning Lab**, Visiting Scholar.

Advisor: Prof. Ming-Hsuan Yang homepage

- Working on learning how to synthesize the stochastic semantic layouts with a conditional Variational Autoencoder (C-VAE).
- Researching on the synthesis of fashion items (virtual try-on) under the few-shot setting via weight generation module.

Sept 2018–Aug 2019 **National Tsing Hua University, Vision Science Lab**, Research Assistant.

Advisor: Prof. Min Sun homepage

- Proposed a new method for controllable video synthesis with a novel loss and training scheme using a recurrent neural network with C-VAE.
- Leveraged a graph-based convolutional neural network to improve the model's prediction of the medical image segmentation.

Mar 2018–Aug 2018 **RelaJet Tech**, Intern.
- Leveraged a permutation-invariant-loss with a convolutional neural network to separate multiple human sounds into individual ones.
- Developed a method to classify human voices and environmental sound.

2017 **National Taiwan University, Department of Finance**, Research Assistant.
Advisor: Prof. Yan-Shing Chen
- Developed a tool using Python to automate the data collection process for the I/B/E/S database.

2015–2016 **Presidential Office Building**, Corporal of Military Police.
- Presidential Award, top 1 in the 104 Period Reserve Officer of Military Police.
- Selected to the Presidential Office Building.

Selected Projects

Fall 2019 **PyToch SegInpaint** code
An implementation of an image inpainting algorithm with segmentation maps.

Spring 2019 **PyTorch VideoVAE** code
An implementation of a video generation model with attribute control.

Winter 2018 **PyTorch WGAN-GP-TTUR** code
An implementation of the techniques to improve the instability in the GAN training.

Selected Courseworks

Computer Science **University of California, Berkeley:**
Structure and Interpretation of Computer Programs, Discrete Math and Probability
National Taiwan University: Data Structures and Algorithms, Algorithms, Operating System, Linear Algebra, Introduction to Computer Science, Machine Learning Foundation, Machine Learning Techniques
Udemy: Python Beyond the Basics - Object-Oriented Programming certificate

CV and DL **Auditing/Online Courses:**
Advanced Topics in Computer Vision (UC Merced), Convolutional Neural Networks for Visual Recognition (Stanford), deeplearning.ai (Coursera, certificate)

Honors and Skills

Awards ICCV 2019 Travel Award
Languages Python, C, C++, Java, R, UNIX shell script, SQL
Tools/Libraries PyTorch, TensorFlow, Torch, Caffe, OpevCV, Scikit-Learn, LIBSVM, Linux, Git
Test Scores GRE: 321, TOEFL: 105, TOEIC: 955.
Honors Got the 1st at the entrance exam for MBA in Finance, NTU, out of 411 candidates

References

Research Mentor Ming-Hsuan Yang, *Professor*, University of California, Merced
✉ mhyang@ucmerced.edu homepage

Research Mentor Min Sun, *Associate Professor*, National Tsing Hua University
✉ sunmin@ee.nthu.edu.tw homepage

Research Mentor Hwann-Tzong Chen, *Associate Professor*, National Tsing Hua University
✉ htchen@cs.nthu.edu.tw homepage