

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 ~ 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

- Preprint 2020 **Controllable Image Synthesis via SegVAE**
Yen-Chi Cheng, Hsin-Ying Lee, Min Sun, and Ming-Hsuan Yang
Under review
- 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)
- NeurIPS-W 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: ~ 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 [i homepage](#)

Research Mentor Hwann-Tzong Chen, *Associate Professor*, National Tsing Hua University

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