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

i paper C code i project

(* indicates equal contribution)

NeurlPSW 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: $\sim 6\%$) 1 paper

Work Experiences

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

Advisor: Prof. Ming-Hsuan Yang 1 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 1 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

 \circ 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 1 certificate

CV and DL Auditing/Online Courses:

Advanced Topics in Computer Vision (UC Merced), Convolutional Neural Networks for Visual Recognition (Stanford), deeplearning.ai (Coursera, 1 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

Research Mentor Min Sun, Associate Professor, National Tsing Hua University

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