# Yen-Cheng Liu

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Page: https://ycliu93.github.io

#### Education

## Georgia Tech, Atlanta, GA

Ph.D. student, Machine Learning

Aug. 2018 - Present

GPA: 4.00/4.00

## National Taiwan University, Taipei, Taiwan

M.S., Electrical Engineering

Sep. 2015 - June 2017

GPA: 4.19/4.30

## Technical University of Munich, Munich, Germany

Exchange Student, EE&IT

Sep. 2014 - Mar. 2015

## National Chiao Tung University, Hsinchu, Taiwan

B.S., Electrical and Computer Engineering

Sep. 2011 - June 2015

GPA: 4.24/4.30

## Research Interest

Machine Learning, Computer Vision,

Domain Adaptation, Representation Learning, Multi-agent Learning.

## Selected Publications

P.-Y. Chen\*, A. Liu\*, <u>Y.-C. Liu</u>, Y.-C. F. Wang. Towards Scene Understanding: Unsupervised Monocular Depth Estimation with Semantic-aware Representation, *IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*, 2019 (Oral)

W.-Y. Chen, <u>Y.-C. Liu</u>, Z. Kira, Y.-C. F. Wang, J.-B. Huang. A Closer Look at Few-shot Classification, *International Conference on Learning Representations (ICLR)*, 2019

A. Liu, Y.-C. Liu, Y.-Y Yeh, Y.-C. F. Wang. A Unified Feature Disentangler for Multi-Domain Image Translation and Manipulation, *Conference on Neural Information Processing Systems (NeurIPS)*, 2018

Y.-C. Liu, Y.-Y Yeh, T.-C. Fu, S.-D. Wang, W.-C. Chiu, Y.-C. F. Wang. Detach and Adapt: Learning Cross-Domain Disentangled Deep Representation, *IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*, 2018 (Spotlight)

Y.-Y. Yeh, Y.-C. Liu, W.-C. Chiu, Y.-C. F. Wang. Anonymous Paper Title, *International Joint Conference on Artificial Intelligence (IJCAI)*, 2019 (under review)

Y.C. Hsu, <u>Y.-C. Liu</u>, Z. Kira. Re-evaluating Continual Learning Scenarios: A Categorization and Case for Strong Baselines, *Conference on Neural Information Processing Systems Workshops*(NeurIPS Workshops), 2018

Y.-J. Li, F.-E. Yang, <u>Y.-C. Liu</u>, Y.-Y Yeh, X. Du, Y.-C. F. Wang. Adaptation and Re-Identification Network: An Unsupervised Deep Transfer Learning Approach to Person Re-Identification, *IEEE Conference on Computer Vision and Pattern Recognition Workshops* (CVPR workshops), 2018

T.-S. Kuo, K.-S. Tseng, J.-W. Yan <u>Y.-C. Liu</u>, Y.-C. F. Wang. Deep Aggregation Net for Land Cover Classification, *IEEE Conference on Computer Vision and Pattern Recognition Workshops (CVPR workshops)*, 2018

Y.-C. Liu, W.-C. Chiu, S.-D. Wang, Y.-C. F. Wang. Domain-Adaptive Generative Adversarial Networks for Sketch-to-Photo Inversion, *IEEE International Workshop on Machine Learning for Signal Processing (MLSP)*, 2017

#### **EXPERIENCE**

### Graduate Research Assistant

Georgia Tech Atlanta, GA

Advisor: Prof. Zsolt Kira
• Continual Learning

- Re-evaluated the current continual learning algorithms and strong baselines

#### Research Assistant

National Taiwan University

Advisor: Prof. Yu-Chiang Frank Wang

Taipei, Taiwan

- Single-Image Depth Estimation with Semantics Consistency
- Integrated unsupervised depth estimation with semantic segmentation
- Proposed segment-based stereo consistency to improve depth estimation
- Stochastic Video Synthesis and Completion
- Extracted time-order representation from limited anchor frames
- Achieved video prediction and interpolation based on sequence-sequence model

#### Graduate Research

CITI, Academia Sinica

Advisor: Prof. Yu-Chiang Frank Wang

Taipei, Taiwan

- Learning Cross-Domain Disentangled Representation
- Excelled the state-of-the-art in task of unsupervised domain adaptation
- Achieved unsupervised image translation conditioned on given attribute
- Domain-Adaptive GAN for Sketch Inversion
- Proposed cross-style sketch-to-photo inversion based on generative models
- Adapted the sketch-to-photo inversion to unsupervised sketch style

#### Teaching Assistant

National Taiwan University

Instructor: Chung-Yang (Ric) Huang

Taipei, Taiwan

Course: Data Structure and Programming

- Provided one-to-one assistance for 150+ students and graded the programming assignments

# Academic Services

Reviewer: IEEE Conference on Computer Vision and Pattern Recognition (CVPR)

Skills Cor

Computer Languages: C, C++, Java, Perl, Bash, Python, MATLAB, Lua, SQL,

IATEX.

Toolbox/Software: TensorFlow, PyTorch, Theano, Torch, Caffe, Chainer, Unity.

# Honors & Awards

#### Rotary International Graduate Student Scholarship

2016

Dean's List Award (4 times)

2011-2015

**Exchange Student Scholarship** 

2014

Pan Wen Yuan Foundation Scholarship

2013