

TZ-YING (GINA) WU

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EDUCATION

Ph.D. in Electrical and Computer Engineering

Sep. 2018 - present

University of California San Diego (UCSD), USA

Advisor: Prof. Nuno Vasconcelos, GPA: 3.88/4.0

Master of Science in Electrical Engineering

Feb. 2016 - Jan. 2018

National Tsing Hua University (NTHU), Taiwan

Advisor: Prof. Min Sun, GPA: 4.27/4.3

Bachelor of Science in Electrical Engineering

Sep. 2012 - Jan. 2016

National Tsing Hua University (NTHU), Taiwan

GPA: 4.02/4.3, ranking: 10/99 (graduated a half-year earlier)

RESEARCH INTEREST

Computer Vision and Deep Learning

long-tailed recognition, continual learning, learning with rejection, taxonomic classification, scene understanding, representation learning, multi-modal fusion, multi-task learning

PUBLICATIONS

Single-Stage Visual Relationship Learning using Conditional Queries

NeurIPS 2022

Alakh Desai, **Tz-Ying Wu**, Subarna Tripathi, and Nuno Vasconcelos

Class-Incremental Learning with Strong Pre-trained Models

CVPR 2022

Tz-Ying Wu, Gurumurthy Swaminathan, Zhizhong Li, Avinash Ravichandran, Nuno Vasconcelos, Rahul Bhotika and Stefano Soatto

Learning of Visual Relations: The Devil is in the Tails

ICCV 2021

Tz-Ying Wu*, Alakh Desai*, Subarna Tripathi, and Nuno Vasconcelos

Solving Long-tailed Recognition with Deep Realistic Taxonomic Classifier

ECCV 2020

Tz-Ying Wu, Pedro Morgado, Pei Wang, Chih-Hui Ho, and Nuno Vasconcelos

Explainable Object-induced Action Decision for Autonomous Vehicles

CVPR 2020

Yiran Xu, Xiaoyin Yang, Lihang Gong, Hsuan-Chu Lin, **Tz-Ying Wu**, Yunsheng Li, Nuno Vasconcelos

Exploit Clues from Views: Self-Supervised and Regularized Learning for Multiview Object Recognition

CVPR 2020

Chih-Hui Ho, Bo Liu, **Tz-Ying Wu**, Nuno Vasconcelos

Liquid Pouring Monitoring via Rich Sensory Inputs

ECCV 2018

Tz-Ying Wu*, Juan-Ting Lin*, Tsun-Hsuang Wang, Chan-Wei Hu, Juan Carlos Niebles, Min Sun

Anticipating Daily Intention using On-Wrist Motion Triggered Sensing

ICCV 2017

Tz-Ying Wu*, Ting-An Chien*, Cheng-Sheng Chan, Chan-Wei Hu, Min Sun (spotlight presentation)

DEMO

Recognition from Hand Cameras: A Revisit with Deep Learning

ACCV 2016

Cheng-Sheng Chan, Ting-An Chien, **Tz-Ying Wu**, Min Sun

SKILLS

Programming Languages: Python, C/C++, MATLAB, Verilog, Assembly

Library & OS: Caffe, PyTorch, Tensorflow, Numpy, Pandas, Matplotlib, OpenCV, L^AT_EX, Linux

Languages: English, Chinese

HONORS AND DISTINCTIONS

Amazon Fellowship

Fall 2022

CVPR 2022 Outstanding Reviewer Award

Spring 2022

UCSD Electrical and Computer Engineering Department Fellowship

Fall 2018

Appier Scholarship for attending international conference

Fall 2017

NTHU EECS Scholarship for attending international conference

Fall 2017

CVGIP 2017 Excellent Paper Award

Summer 2017

NTHU EE Admission Scholarship for outstanding students

Fall 2016

NTHU EECS Scholarship for outstanding students

Fall 2014

Jia-Bin Chen Scholarship for outstanding students in EE

Fall 2014

NTHU scholarship for academic excellence

Fall 2013

Breaking records in athletics of NTHU on three occasions

Fall 2012 - Spring 2013

WORK EXPERIENCE

Amazon AWS AI Lab

Summer 2021

Applied Scientist Intern

Conducted research on large-scale class-incremental learning problems.

IMEC-Taiwan CO. R&D department

Summer 2015

Signal Processing Intern

Designed and implemented neuron-signal generator, encoder, and decoder framework.

RESEARCH EXPERIENCE

Graduate Student Researcher, Statistical Visual Computing Lab, UCSD

2018 - present

Working on long-tailed recognition, continual learning and scene understanding problems.

Graduate Research Assistant, Vision Science Lab, NTHU

2016 - 2018

Developed wearable camera and IOT system with embedded boards.

Conducted deep learning experiments for learning human behaviors using multi-modal fusion.

Undergraduate Research, advised by Prof. Jing-Jia Liou, NTHU

2014 - 2015

FPGA Design of Accelerators with High-level Evaluation and Synthesis Tools

TEACHING EXPERIENCE

Teaching Assistant, UCSD

Statistical Learning I

Fall 2021

Elements of Machine Intelligence

Winter 2020

Statistical Learning II

Winter 2019

Teaching Assistant, NTHU

Deep Learning Lab

UNITEC - NTHU Summer School 2017

Signals and Systems

Spring 2016, 2017

Introduction to Programming (C/C++)

Fall 2015

OTHER EXPERIENCE

Mentor of UCSD ECE Summer Research Internship Program

Summer 2019 - 2022

Student volunteer

ACCV 2016, ICCV 2017

Member of EE student association of academic affair

2014 - 2015, 2012 - 2013

Team leader in the NTHU EE womens basketball team

2014 - 2015

Assisting in holding 2014 NTHU International Week

Spring 2014

Member of NTHU track and field team

2012 - 2013