### CHENG-EN WU

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Information Madison, WI 53706 Webpage: https://cewu.github.io

**EDUCATION** University of Wisconsin-Madison Fall 2020 - Present

Ph.D. student in Electrical and Computer Engineering

National Tsing Hua University 2014 - 2016

M.S. in Computer Science

Advised by Prof. Jia-Shung Wang

National Taiwan University of Science and Technology 2009 - 2012

B.S. in Electrical and Computer Engineering

Work TikTok, Seattle, WA Summer 2022

 $Research\ Intern$ EXPERIENCE

Collaborated with Yu Tian, Linjie Yang, Haichao Yu and Heng Wang on prompt tuning for Vision-

Language Pre-rained Models.

NEC Labs America, Princeton, NJ Summer 2021

Research Intern

Collaborated with Farlay Lai and Asim Kadav on self-supervised video representation learning.

Academia Sinica, Taipei, Taiwan 2018 - 2020

Research Assistant

Collaborated with Chu-Song Chen on unforgetting continual learning in ConvNets and efficient visual recognition with deep neural networks.

MediaTek, Hsinchu, Taiwan

Software Engineer

Improved the computational efficiency of neural networks on mobile devices and developed mobile GPU drivers to boost run-time of applications using neural networks.

2017 - 2018

2014 - 2016

2014

2016 - 2017Realtek, Hsinchu, Taiwan

Software Engineer

Developed H.264 encoder drivers for TV SOCs.

National Tsing Hua University, Hsinchu, Taiwan

ITRI. Hsinchu, Taiwan Summer 2015

Research Intern

Developed MultiPath TCP to achieve high throughput of wireless networks.

Research Assistant

Collaborated with Jia-Shung Wang on real-time vehicle tracking system for visual surveillance.

GOTrust Technology, Taichung, Taiwan Software Engineer

Developed middlewares for the secure MicroSD card and established an MFC-based testing tool for

the production of secure MicroSD cards.

1. Why Is Prompt Tuning for Vision-Language Models Robust to Noisy Labels? **Publications** 

International Conference on Computer Vision (ICCV) 2023

Cheng-En Wu, Yu Tian, Haichao Yu, Heng Wang, Pedro Morgado, Yu Hen Hu, Linjie Yang

2. Self-supervised Video Representation Learning with Cascade Positive Retrieval L3D-IVU Workshop at Conference on Computer Vision and Pattern Recognition (CVPR) 2022 Cheng-En Wu, Farley Lai, Yu Hen Hu, Asim Kadav

### $3.\ \,$ Merging Well-Trained Deep CNN Models for Efficient Inference

Conference on Asia Pacific Signal and Information Processing Association (APSIPA) 2020 Cheng-En Wu, Jia-Hong Lee, Timmy ST Wan, Yi-Ming Chan, Chu-Song Chen

# 4. Extending Conditional Convolution Structures For Enhancing Multitasking Continual Learning

Conference on Asia Pacific Signal and Information Processing Association (APSIPA) 2020 \*Cheng-Hao Tu \*Cheng-En Wu, Chu-Song Chen

#### 5. Compacting, Picking and Growing for Unforgetting Continual Learning

Conference on Neural Information Processing Systems (NeurIPS) 2019

Steven Hung, Cheng-Hao Tu, Cheng-En Wu, Chien-Hung Chen, Yi-Ming Chan, Chu-Song Chen

#### 6. IMMVP: An Efficient Daytime and NighttimeOn-Road Object Detector

IEEE International Workshop on Multimedia Signal Processing (MMSP) 2019 Cheng-En Wu, Yi-Ming Chan, Chien-Hung Chen, Wen-Cheng Chen, Chu-Song Chen

#### 7. On Merging MobileNets for Efficient Multitask Inference

EMC<sup>2</sup> Workshop at IEEE Symposium on High Performance Computer Architecture (HPCA) 2019 **Cheng-En Wu**, Yi-Ming Chan, Chu-Song Chen

# 8. Traffic pattern modeling, trajectory classification and vehicle tracking within urban intersections

IEEE International Smart Cities Conference (ISC2) 2017 Cheng-En Wu, Wen-Yen Yang, Hai-Che Ting, Jia-Shung Wang

Professional Services Reviewer for ICCV, CVPR, BMVC

2020 – Present

Honors and Awards Honorable Mention at the MMSP Challenge

2019

Delta Electronics Scholarship

2016 2012

NTUST ECE Undergraduate Honorable Mention for Research

2022 – Present

SELECTED PROJECTS

 $\mathbf{Edge} \ \mathbf{AI}$ 

University of Wisconsin-Madison

Developed innovative block pruning methods for Convolutional Neural Networks, enabling seamless integration with edge devices like the NVIDIA Jetson Nano.

**Urban Computing** 

2015 - 2016

National Tsing Hua University, Visual Communication Lab

Designed a real-time vehicle tracking method from surveillance camera videos and developed a system for trajectory classification and tracklet prediction.

#### Gesture Recognition

2010 - 2011

National Taiwan University of Science and Technology

Developed a method for detecting the number of fingers raised and built an Android App for gesture control of PowerPoint presentations.