CHENG-EN WU

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EDUCATION University of Wisconsin-Madison Fall 2020 - Present

Graduate 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 NEC Labs America, Princeton, NJ Summer 2021

EXPERIENCE Research Intern

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

Academia Sinica, Taipei, Taiwan Research Assistant

Collaborated with Chu-Song Chen on unforgetting continual learning in ConvNets and efficient

visual recognition with deep neural networks.

MediaTek, Hsinchu, Taiwan

2017 - 2018

2018 - 2020

2014 - 2016

2014

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.

Realtek, Hsinchu, Taiwan 2016 - 2017

Software Engineer

Developed H.264 encoder drivers for TV SOCs.

Summer 2015 ITRI, Hsinchu, Taiwan

Research Intern

Developed MultiPath TCP to achieve high throughput of wireless networks.

National Tsing Hua University, Hsinchu, Taiwan

Research Assistant

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

Software Engineer

Developed middlewares for the secure MicroSD card and established an MFC-based testing tool for the production of secure MicroSD cards.

PUBLICATIONS 1. Merging Well-Trained Deep CNN Models for Efficient Inference

GOTrust Technology, Taichung, Taiwan

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

2. 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

3. 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

4. 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

5. Energy Efficient Machine Learning and Cognitive Computing for Embedded Applications

Workshop at IEEE Symposium on High Performance Computer Architecture (HPCA) 2019 Cheng-En Wu, Yi-Ming Chan, Chu-Song Chen

6. 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 British Machine Vision Conference (BMVC) Reviewer for British Machine Vision Conference (BMVC) Reviewer for Journal of Information Science and Engineering (JSIE)	2021 2020 2020
Honors and Awards	Honorable Mention at the MMSP Challenge Delta Electronics Scholarship NTUST ECE Undergraduate Honorable Mention for Research	2019 2016 2012

SELECTED Urban Computing

2015 - 2016

Projects

National Tsing Hua University, Visual Communication Lab

Designed a real-time vehicle tracking method in a surveillance camera 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.

Teaching

Introduction to Massive Data Analysis

Fall 2015

EXPERIENCE

Teaching Assistant

Helped design curriculum for new course, designed coding project and delivered three lectures.

Introduction to Media Coding

Spring 2015

Teaching Assistant

Assisted students at office hours, graded exams and maintained website.