

Curriculum Vitae/Resume

U-M ID: 89678041

Name: Cheng-En Wu

Program: Electrical Computer Engineering Ph.D.

# Cheng-En Wu

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## EDUCATION

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### National Tsing Hua University

*Master of Science in Computer Science*

Hsinchu, Taiwan

Sep. 2014 - Jul. 2016

- Overall GPA: 4.19/4.30
- Advisor: Prof. Jia-Shung Wang

### National Taiwan University of Science and Technology

*Bachelor of Science in Electrical and Computer Engineering*

Taipei, Taiwan

Sep. 2009 - Jun. 2012

- Overall GPA: 3.67/4.00

## RESEARCH EXPERIENCE

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### Academia Sinica

*Research Assistant*

Taipei, Taiwan

Mar. 2018 - Present

- Developed a approach to merge well-trained neural networks for multiple tasks.
- Built a tool for automatically merging all kinds of neural networks.
- Advisor: Prof. Chu-Song Chen

### National Tsing Hua University

*Research Assistant*

Hsinchu, Taiwan

Sep. 2014 - Aug. 2016

- Designed a real-time vehicle tracking system for visual surveillance.
- Advisor: Prof. Jia-Shung Wang

### ITRI Inc.

*Research Assistant*

Hsinchu, Taiwan

Jul. 2015 - Aug. 2015

- Developed MultiPath TCP to achieve high throughput of wireless networks.

## PUBLICATION

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Steven C. Y. Hung, Cheng-Hao Tu, **Cheng-En Wu**, Chien-Hung Chen, Yi-Ming Chan, and Chu-Song Chen “*Compacting, Picking and Growing for Unforgetting Continual Learning.*” Thirty-third Conference on Neural Information Processing Systems, NeurIPS 2019, December 2019

**Cheng-En Wu**, Yi-Ming Chan, Chien-Hung Chen, Wen-Cheng Chen, and Chu-Song Chen “*IMMVP: An Efficient Daytime and Nighttime On-Road Object Detector.*” IEEE 19th International Workshop on Multimedia Signal Processing (MMSp), September 2019

**Cheng-En Wu**, Yi-Ming Chan and, Chu-Song Chen “*On Merging MobileNets for Efficient Multitask Inference.*” Energy Efficient Machine Learning and Cognitive Computing for Embedded Applications (*EMC<sup>2</sup>*) Workshop in the 25th IEEE HPCA, February 2019

**Cheng-En Wu**, Wen-Yen Yang, Hai-Che Ting, and Jia-Shung Wang “*Traffic pattern modeling, trajectory classification and vehicle tracking within urban intersections.*” International Smart Cities Conference (ISC2), September 2017

## WORK EXPERIENCE

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### **MediaTek Inc.**

*Software Engineer*

Hsinchu, Taiwan  
Mar. 2017 - Mar. 2018

- Developed mobile GPU drivers to boost run-time of applications using neural networks.
- Migrated ARM Mali GPU drivers to the Android platform.

### **Realtek Inc.**

*Software Engineer*

Hsinchu, Taiwan  
Dec. 2016 - Mar. 2017

- Developed H.264 encoder drivers for TV SOCs.

### **GOTrust Technology Inc.**

*Software Engineer*

Taichung, Taiwan  
Jan. 2014 - Jun. 2014

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

## SELECTED PROJECTS

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### **Urban Computing**

*National Tsing Hua University, Visual Communication Lab*

Hsinchu, Taiwan  
Sep. 2015 - Jun. 2016

- Designed a real-time vehicle tracking method in a surveillance camera.
- Developed a system for trajectory classification and tracklet prediction.

### **Gesture Recognition**

*National Taiwan University of Science and Technology*

Taipei, Taiwan  
Mar. 2010 - Feb. 2011

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

## PROGRAMMING SKILLS

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TensorFlow, PyTorch, OpenCV, Caffe, C, C++, Python, Matlab, Android, Java