# Cheng-Hao Tu

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# EDUCATION

### National Taiwan University

M.Sc. in Department of Computer Science & Information Engineering

2015 - 2018

- GPA: 3.97/4.30, Rank: 60/152

#### **National Taiwan University**

B.Sc. in Department of Computer Science & Information Engineering

2011-2015

- GPA: 4.02/4.30, Rank: 7/111

# EXPERIENCE

## Institute of Information Science, Academia Sinica

Research Assistant

Apr. 2019 -Now

- Continual learning
- Image retrieval, hash code learning
- Network pruning

### NTU IoX Center, National Taiwan University

System Administrator

July 2016 -Feb. 2017

- Maintaining IOX center website, and personal computer troubleshooting

#### Institute of Information Science, Academia Sinica

Summer Internship

July 2016 -Aug. 2016

- Local feature learning, and trainable SIFT descriptors

## NTU RoboPAL Team, National Taiwan University

Undergraduate Student

Feb. 2014 –Jan. 2015

- Our team makes the top 8 in Standard Platform League of RoboCup 2014 in João Pessoa, Brazil.

#### Publications

- [1] C.-H. Tu, J.-H. Lee, Y.-M. Chan, and C.-S. Chen, "Pruning depthwise separable convolutions for mobilenet compression", in *IEEE International Joint Conference on Neural Networks (IJCNN)*, 2020, pp. 1–8.
- [2] C.-H. Tu, C.-E. Wu, and C.-S. Chen, "Extending conditional convolution structures for enhancing multitasking continual learning", in *Asia-Pacific Signal and Information Processing Association Annual Summit and Conference (APSIPA ASC)*, 2020, pp. 1605–1610.
- [3] S. C.-Y. Hung, C.-H. Tu, C.-E. Wu, C.-H. Chen, Y.-M. Chan, and C.-S. Chen, "Compacting, picking and growing for unforgetting continual learning", in *Advances in Neural Information Processing Systems* (NeurIPS), 2019, pp. 13669–13679.
- [4] C.-H. Tu, C.-Y. Yang, and J. Y.-j. Hsu, "Idennet: Identity-aware facial action unit detection", in *IEEE International Conference on Automatic Face & Gesture Recognition (FG)*, 2019, pp. 1–8.

- [5] H.-F. Yang, C.-H. Tu, and C.-S. Chen, "Adaptive labeling for deep learning to hash", in *Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR) Workshops*, 2019.
- [6] H.-F. Yang, C.-H. Tu, and C.-S. Chen, "Adaptive labeling for hash code learning via neural networks", in *IEEE International Conference on Image Processing (ICIP)*, 2019, pp. 2244–2248.
- [7] H.-F. Yang, T.-Y. Chen, C.-H. Tu, and C.-S. Chen, "Equivalent scanning network of unpadded cnns", *IEEE Signal Processing Letters*, vol. 25, no. 10, pp. 1590–1594, 2018.

# AWARDS

• The Presidential Award (5%), National Taiwan University

Fall 2013

• The Presidential Award (5%), National Taiwan University

Fall 2012

# CERTIFICATE

• Reviewer in Pattern Recognition, ELSEVIER

2020

# INVITED TALKS

• Compacting, Picking and Growing for Unforgetting Continual Learning AI Forum 2020 at Howard Civil Service International House, Taipei, Taiwan

December 2020

# SKILLS

- Programming Languages: C/C++, Python, MATLAB, Java
- Frameworks: Caffe, Pytorch, Tensorflow, Theano, Numpy, Scikit-learn

#### TEACHING

• Teaching Assistant at National Taiwan University Course: Introduction to Digital Signal Processing Fall 2017