Shao-Yuan Lo

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EDUCATION

Johns Hopkins University (JHU)

Ph.D. in Electrical and Computer Engineering

National Chiao Tung University (NCTU)

M.S. in Electronics Engineering

B.S. in EECS Undergraduate Honors Program

University of Illinois at Urbana-Champaign (UIUC)

Exchange Student in Electrical and Computer Engineering

Aug. 2016 –Dec. 2016

RESEARCH EXPERIENCE

Vision and Image Understanding Lab, JHU

Research Assistant, with Prof. Vishal M. Patel (Ph.D. advisor)

Baltimore, MD Aug. 2019 –Present

- Adversarial robustness to multi-perturbation: [1]

- Novel adversarial attack: [2]

Communication Electronics and Signal Processing Lab, NCTU

Research Assistant, with Prof. Hsueh-Ming Hang (M.S. advisor)

Hsinchu, Taiwan Sep. 2017 –Jun. 2019

- Real-time semantic segmentation: [3,6]

- Compressed-domain semantic segmentation: [4]

- Deep learning-based lane detection: [5,7]

Publications

- [1] **Shao-Yuan Lo** and Vishal M. Patel. "Defending Against Multiple and Unforeseen Adversarial Videos." In *arXiv*, 2020.
- [2] Shao-Yuan Lo and Vishal M. Patel. "MultAV: Multiplicative Adversarial Videos." In arXiv, 2020.
- [3] Shao-Yuan Lo, Hsueh-Ming Hang, Sheng-Wei Chan, and Jing-Jhih Lin. "Efficient Dense Modules of Asymmetric Convolution for Real-Time Semantic Segmentation." In *ACM International Conference on Multimedia in Asia* (MMAsia), 2019. [Best Paper Award]
- [4] **Shao-Yuan Lo** and Hsueh-Ming Hang. "Exploring Semantic Segmentation on the DCT Representation." In *ACM International Conference on Multimedia in Asia (MMAsia)*, 2019. [Oral]
- [5] Shao-Yuan Lo, Hsueh-Ming Hang, Sheng-Wei Chan, and Jing-Jhih Lin. "Multi-Class Lane Semantic Segmentation using Efficient Convolutional Networks." In *IEEE International Workshop on Multimedia Signal Processing* (MMSP), 2019. [Oral]
- [6] Shang-Wei Hung, Shao-Yuan Lo, and Hsueh-Ming Hang. "Incorporating Luminance, Depth and Color Information by a Fusion-based Network for Semantic Segmentation." In *IEEE International Conference on Image Processing* (ICIP), 2019. [Oral]
- [7] Ping-Rong Chen*, Shao-Yuan Lo*, Hsueh-Ming Hang, Sheng-Wei Chan, and Jing-Jhih Lin. "Efficient Road Lane Marking Detection with Deep Learning." In *IEEE International Conference on Digital Signal Processing (DSP)*, 2018. [Oral]

AWARDS

• Government Scholarship to Study Abroad, Ministry of Education, Taiwan	2020
• Best Paper Award, ACM MMAsia 2019	2019
• Best Master Thesis Award, Chinese Image Processing and Pattern Recognition Society	2019
• Students' Outstanding Contribution Award (highest honor of graduation), NCTU	2019
• Dean's List, EECS Honors Program, NCTU	2017
• Scholarship for Outbound Exchange, NCTU	2016
• WINTEK Outstanding Freshman Scholarship, WINTEK Corp. and NCTU	2013

ACADEMIC SERVICES

• Reviewer: IEEE Transactions on Systems, Man, and Cybernetics: Systems, Pattern Recognition

LEADERSHIP

• Secretary, JHU Taiwanese Student Association, JHU	2020 –Present
• Secretary, EECS Student Association, EECS Honors Program, NCTU	2015 - 2016
• Treasurer, NCTU Chinese Chess Club, NCTU	2014 - 2015
• Arts Chair, EECS Summer Camp for High School Students, EECS Honors Program, NCTU	2014 - 2015