YU-JHE LI

Homepage: https://yujheli.github.io/
Email: yujheli@andrew.cmu.edu

RESEARCH INTERESTS

Computer Vision and Machine Learning.

EDUCATION

Carnegie Mellon University, Pittsburgh, PA *Aug. 2020 - Current*
Ph.D. in Electrical and Computer Engineering

National Taiwan University, Taipei, Taiwan *Sep. 2017 - Jan. 2019*
M.S. in Data Science program of Communication Engineering Major GPA: 4.18/4.3

National Tsing Hua University, Hsinchu, Taiwan *Sep. 2013 - Jan. 2017*
B.S. in Electrical Engineering and Computer Science (EECS) Major GPA: 4.09/4.3
Exchange scholar at: (all with scholarships)

- TsingHua University, Beijing, China. *2014 Summer*
- Fudan University, Shanghai, China. *2015 Summer*
- University of Minnesota, Minneapolis, USA. *2016 Fall*

RESEARCH EXPERIENCE

The Robotics Institute, Carnegie Mellon University September 2019 - Current
Research Associate working with Prof. Kris M. Kitani *Pittsburgh, PA, USA*

- Built cross-camera tracking model for workers in construction sites using location, motion, and appearance deep features, followed by action recognition.
- Learned clothing color invariant representations via adversarial learning and body structure disentanglement for person re-identification.

Vision and Learning Lab, National Taiwan University September 2017 - July 2019
Graduate Research Assistant working with Prof. Yu-Chiang Frank Wang *Taipei, Taiwan*

- Built novel deep framework for unsupervised learning and domain adaptation in re-identification via unsupervised pose disentanglement.
- Learned resolution-invariant representations for cross-resolution tasks via adversarial learning of super-resolution and image generation.

Institute for Health Informatics, University of Minnesota October 2016 - January 2017
Undergraduate Research Assistant working with Prof. Chih-Lin Chi *Minneapolis, MN, USA*

- Developed machine learning model for statistical genetic disease prediction and analysis.

PUBLICATIONS

Pre-prints:

- **Yu-Jhe Li**, Xinshuo Wen, Kris M. Kitani. "Learning Shape Representations for Clothing Variations in Person Re-identification" *(In Arxiv 2020)*
- **Yu-Jhe Li***, Yun-Chun Chen*, Yen-Yu Lin, and Yu-Chiang Frank Wang. "Cross-Resolution Adversarial Dual Network for Person Re-Identification and Beyond." *(In Arxiv 2020)* (* indicates equal contribution)

Conference Papers:

1. **Yu-Jhe Li**, Ci-Siang Lin, Yan-Bo Lin, and Yu-Chiang Frank Wang. "Cross-Dataset Person Re-Identification via Unsupervised Pose Disentanglement and Adaptation." *IEEE International Conference on Computer Vision (ICCV).* Nov 2019.

2. **Yu-Jhe Li***, Yun-Chun Chen*, Yen-Yu Lin, Xiaofei Du, and Yu-Chiang Frank Wang. "Recover and Identify: Generative Dual Model for Cross-Resolution Person Re-Identification." *IEEE International Conference on Computer Vision (ICCV).* Nov 2019. (* indicates equal contribution)
3. Yen-Ting Liu, **Yu-Jhe Li**, Fu-En Yang, Shang-Fu Chen, and Yu-Chiang Frank Wang. "Learning Hierarchical Self-Attention for Video Summarization." *IEEE International Conference on Image Processing (ICIP).* Sep 2019.
4. Wen-Hsuan Chu, **Yu-Jhe Li**, Jing-Cheng Chang, and Yu-Chiang Frank Wang. "Spot and Learn: A Maximum-Entropy Image Patch Sampler for Few-Shot Classification." *IEEE Conference on Computer Vision and Pattern Recognition (CVPR).* Jun 2019.
5. Yan-Bo Lin, **Yu-Jhe Li**, and Yu-Chiang Frank Wang. "Dual-modality Seq2seq Network for Audio-Visual Event Localization." *IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP).* May 2019.
6. **Yu-Jhe Li***, Yun-Chun Chen*, XiaoFei Du, and Yu-Chiang Frank Wang. " Learning Resolution-Invariant Deep Representations for Person Re-Identification." *AAAI Conference on Artificial Intelligence (AAAI).* Jan 2019. (* indicates equal contribution)
7. **Yu-Jhe Li**, Hsin-Yu Chang, Yu-Jing Lin, Po-Wei Wu, and Yu-Chiang Frank Wang. "Deep Reinforcement Learning for Playing 2.5D Fighting Games." *IEEE International Conference on Image Processing (ICIP).* Oct 2018.
8. **Yu-Jhe Li**, Fu-En Yang, Yen-Cheng Liu, Yu-Ying Yeh, Xiao-Fei Du, and Yu-Chiang Frank Wang. "Adaptation and Re-Identification Network: An Unsupervised Deep Transfer Learning Approach to Person Re-Identification." *IEEE Conference on Computer Vision and Pattern Recognition (CVPR) Workshops.* Jun 2018.
9. Yun-Chun Chen, **Yu-Jhe Li**, Aragorn Tseng, and Tsungnan Lin. "Deep Learning for Malicious Flow Detection." *IEEE International Symposium on Personal, Indoor and Mobile Radio Communications (PIMRC).* Oct 2017.

WORK EXPERIENCE

Internships

- Software Engineer at Dragon Cloud AI Inc., Winter 2018. *San Francisco, USA*
- Software Engineer at Trend Micro Inc., Summer 2017. *Taipei, Taiwan*

ACADEMIC HONORS

- **Best Master Thesis Award,** *TAAI 2019.* *Taipei, Taiwan*
- **Best Master Thesis Award,** *IPPR 2019.* *Taipei, Taiwan*
- **Foxconn Technology Research Award,** *Foxconn Technology 2019.* *Taipei, Taiwan*
- **NTU Academic Outstanding Award,** *National Taiwan University 2018.* *Taipei, Taiwan*
- **Academic Scholoarship,** *Pan Wen Yuan Foundation 2018.* *Taipei, Taiwan*
- **Academic Award,** *Witty Technology Education Foundation 2018.* *Taipei, Taiwan*
- **Student Paper Award,** *CVGIP 2018.* *Tainan, Taiwan*
- **Second Place,** *Nvidia GTC 2018 research poster competition.* *Taipei, Taiwan*

PROFESSIONAL ACTIVITY

- **Reviewer** for CVPR 2020, ECCV 2020. *Dec. 2019*
- **Invited Speaker** at The 3rd Augmented Intelligence and Interaction (AII) Workshop. *Jul. 2019*
- **Reviewer** for IEEE International Conference on Computer Vision (ICCV) 2019. *Jun. 2019*
- **Invited Teaching Assistant** at AI summer school in Hsinchu. *Aug. 2018*