

Education

- Sept. 2020 **Ph.D. Student**, University of Toronto, ON, Canada.
– Present Department of Computer Science
Advisor: Animesh Garg
- Sept. 2014 **Bachelor of Science**, National Taiwan University, Taipei, Taiwan.
– Jun. 2018 Department of Electrical Engineering

Work Experience

- Sept. 2020 **People, AI and Robotics Lab, University of Toronto, ON, Canada.**
– Present Research Assistant. Advisor: Animesh Garg
• Working on grasp synthesis and related problems.
- Sept. 2020 **Vector Institute, Toronto, ON, Canada.**
– Present Student Researcher. Advisor: Animesh Garg
- Jan. 2020 **Vision and Learning Lab, University of California at Merced, CA, USA.**
– Jun. 2020 Short-term Visiting Scholar. Mentor: Ming-Hsuan Yang
• Proposed a self-attention algorithm for video-based 3D human pose and shape estimation.
- Apr. 2019 **Vision and Learning Lab, Virginia Tech, VA, USA.**
– Jul. 2019 Short-term Visiting Scholar. Mentor: Jia-Bin Huang
• Proposed an algorithm for searching structured image prior for image restoration and synthesis tasks.
- Jul. 2017 **Computer Vision Lab, Academia Sinica, Taipei, Taiwan.**
– Jan. 2019 Research Assistant. Mentors: Yen-Yu Lin, Jia-Bin Huang, and Ming-Hsuan Yang
• Proposed a cross-task consistency algorithm for joint semantic matching and object co-segmentation.
• Proposed a cross-resolution generative adversarial network for cross-resolution visual recognition.
• Proposed a cross-domain consistency algorithm for unsupervised domain adaptation.
• Developed a weakly-supervised learning algorithm for semantic matching.
- Nov. 2016 **Communication and Multimedia Lab, National Taiwan University, Taipei, Taiwan.**
– Oct. 2018 Undergraduate Student Researcher. Mentor: Winston Hsu
• Developed a 3D segmentation network for lung cancer radiomics-tumor region segmentation.
• Proposed a weakly-supervised learning method for object localization.

Selected Publications

Journal papers

- PAMI 2020 **Show, Match and Segment: Joint Weakly Supervised Learning of Semantic Matching and Object Co-segmentation.**
Yun-Chun Chen, Yen-Yu Lin, Ming-Hsuan Yang, and Jia-Bin Huang
IEEE Transactions on Pattern Analysis and Machine Intelligence (PAMI), 2020
- PAMI **Cross-Resolution Adversarial Dual Network for Person Re-Identification and Beyond.**
Yun-Chun Chen*, Yu-Jhe Li*, Yen-Yu Lin, and Yu-Chiang Frank Wang
IEEE Transactions on Pattern Analysis and Machine Intelligence (PAMI) (major revision)

Conference papers

- ICRA 2021 **Learning by Watching: Physical Imitation of Manipulation Skills from Human Videos.**
Haoyu Xiong, Quanzhou Li, **Yun-Chun Chen**, Homanga Bharadhwaj, Samarth Sinha, and Animesh Garg
IEEE International Conference on Robotics and Automation (ICRA), Xian, China, May, 2021 (under review)

- ECCV 2020 **NAS-DIP: Learning Deep Image Prior with Neural Architecture Search.**
Yun-Chun Chen*, Chen Gao*, Esther Robb, and Jia-Bin Huang
 European Conference on Computer Vision (ECCV), Glasgow, UK, August, 2020
- ECCV 2020 **Learning to Learn in a Semi-Supervised Fashion.**
Yun-Chun Chen, Chao-Te Chou, and Yu-Chiang Frank Wang
 European Conference on Computer Vision (ECCV), Glasgow, UK, August, 2020
- ICCV 2019 **Recover and Identify: A Generative Dual Model for Cross-Resolution Person Re-Identification.**
Yun-Chun Chen*, Yu-Jhe Li*, Yen-Yu Lin, Xiaofei Du, and Yu-Chiang Frank Wang
 IEEE International Conference on Computer Vision (ICCV), Seoul, South Korea, October, 2019
- CVPR 2019 **CrDoCo: Pixel-level Domain Transfer with Cross-Domain Consistency.**
Yun-Chun Chen, Yen-Yu Lin, Ming-Hsuan Yang, and Jia-Bin Huang
 IEEE Conference on Computer Vision and Pattern Recognition (CVPR), Long Beach, California, June, 2019
- AAAI 2019 **Learning Resolution-Invariant Deep Representations for Person Re-Identification.**
Yun-Chun Chen*, Yu-Jhe Li*, Xiaofei Du, and Yu-Chiang Frank Wang
 AAAI Conference on Artificial Intelligence (AAAI), Honolulu, Hawaii, January, 2019 **Oral Presentation**
- ACCV 2018 **Deep Semantic Matching with Foreground Detection and Cycle-Consistency.**
Yun-Chun Chen, Po-Hsiang Huang, Li-Yu Yu, Jia-Bin Huang, Ming-Hsuan Yang, and Yen-Yu Lin
 Asian Conference on Computer Vision (ACCV), Perth, Australia, December, 2018

Teaching Experience

National Taiwan University.

- Spring 2018 EE 5184: Machine Learning.
 Fall 2017 EE 1004: Computer Programming.

Honors and Awards

- 2019 Appier AI Scholarship for ICCV 2019.
 2019 Appier AI Scholarship for CVPR 2019.
 2019 Appier AI Scholarship for AAAI 2019.
 2018 Third Place in IEEE Video and Image Processing (VIP) Cup.
 2017 China Technical Consultants Incorporation Scholarship.
 2017 Second Prize in NTUEE Undergraduate Innovation Award.

Academic Services

- Journal Reviewer IEEE Transactions on Image Processing (TIP)
 Conference Neural Information Processing Systems (NeurIPS) 2020
 Reviewer International Conference on Learning Representations (ICLR) 2021
 IEEE Conference on Computer Vision and Pattern Recognition (CVPR) 2020, 2021
 IEEE International Conference on Computer Vision (ICCV) 2019
 European Conference on Computer Vision (ECCV) 2020
 British Machine Vision Conference (BMVC) 2019, 2020
 Asian Conference on Computer Vision (ACCV) 2020
 IEEE Winter Conference on Applications of Computer Vision (WACV) 2021
 IEEE International Conference on Robotics and Automation (ICRA) 2021
 Conference on Robot Learning (CoRL) 2020
 International Joint Conference on Artificial Intelligence (IJCAI) 2021
 AAAI Conference on Artificial Intelligence (AAAI) 2020, 2021
 IEEE International Conference on Image Processing (ICIP) 2019

References

- Ph.D. Advisor **Animesh Garg**, Assistant Professor, University of Toronto.
 ✉ garg@cs.toronto.edu

Research Mentor **Ming-Hsuan Yang**, Professor, University of California at Merced.
✉ mhyang@ucmerced.edu

Research Mentor **Jia-Bin Huang**, Assistant Professor, Virginia Tech.
✉ jbhuang@vt.edu

Research Mentor **Yen-Yu Lin**, Professor, National Chiao Tung University.
✉ lin@cs.nctu.edu.tw