Yi-Wen Chen

Curriculum Vitae

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Education

Ph.D. Student	**University of California, Merced**, CA, USA. 2019 – Present, Electrical Engineering and Computer Science Vision and Learning Lab ⓘ link Advisor: Prof. Ming-Hsuan Yang
Master of Science	**National Taiwan University**, Taipei, Taiwan. 2017 – 2019, Communication Engineering GPA: 3.98/4.30
Bachelor of Science	**National Taiwan University**, Taipei, Taiwan. 2013 – 2017, Electrical Engineering GPA: 3.85/4.30

Research Interests

My research interests lie in **computer vision** and **deep learning**.
○ Vision and Language   ○ Video Object Segmentation   ○ Representation Learning

Publications

NeurIPS 2021	**End-to-end Multi-modal Video Temporal Grounding**. Yi-Wen Chen, Yi-Hsuan Tsai, and Ming-Hsuan Yang Conference on Neural Information Processing Systems, 2021
ACCV 2020	**Regularizing Meta-Learning via Gradient Dropout**. Hung-Yu Tseng*, Yi-Wen Chen* (* indicates equal contribution), Yi-Hsuan Tsai, Sifei Liu, Yen-Yu Lin, and Ming-Hsuan Yang Asian Conference on Computer Vision, 2020
IJCV 2020	**VOSTR: Video Object Segmentation via Transferable Representations**. Yi-Wen Chen, Yi-Hsuan Tsai, Yen-Yu Lin, and Ming-Hsuan Yang International Journal of Computer Vision, 2020
BMVC 2019	**Referring Expression Object Segmentation with Caption-Aware Consistency**. Yi-Wen Chen, Yi-Hsuan Tsai, Tiantian Wang, Yen-Yu Lin, and Ming-Hsuan Yang British Machine Vision Conference, 2019
ACCV 2018	**Unseen Object Segmentation in Videos via Transferable Representations**. Yi-Wen Chen, Yi-Hsuan Tsai, Chu-Ya Yang, Yen-Yu Lin, and Ming-Hsuan Yang Asian Conference on Computer Vision, 2018 **Best Student Paper Honorable Mention**

Research and Work Experience

Research Intern	**Snap Research**, Santa Monica, CA, USA. May 2021 – Aug. 2021 Mentors: Hsin-Ying Lee, Jian Ren, and Sergey Tulyakov **Project: Complex Scene Generation**
Research Intern	**ByteDance AI Lab**, Mountain View, CA, USA. May 2020 – Dec. 2020 Mentors: Xiaojie Jin, Xiaohui Shen, and Jianwei Li **Project: Video Saliency Detection**

Research Intern	**ASUS Intelligent Cloud Services**, Taipei, Taiwan.
	May 2019 – Jul. 2019
	Mentors: Allen Kao and Cheng-Hsien Han
	Project: Pose-Guided Face Rotation
	○ Developed a generative adversarial network (GAN) to generate yaw-rotated facial images based on facial landmarks.
Research Assistant	**Computer Vision Lab, CITI Academia Sinica**, Taipei, Taiwan.
	Jun. 2017 – Jun. 2019
	Mentors: Yen-Yu Lin, Yi-Hsuan Tsai, and Ming-Hsuan Yang
	Project: Referring Expression Object Segmentation
	○ Developed the spatial-aware dynamic filters to bridge the visual and language domains for referring expression object segmentation.
	○ Proposed an end-to-end trainable network for joint referring expression comprehension and generation via caption-aware consistency.
	○ Paper is accepted to **BMVC 2019**.
	Project: Unseen Object Segmentation in Videos
	○ Developed a self-supervised learning framework to transfer knowledge from seen objects in images to unseen objects in videos.
	○ Papers are accepted to **ACCV 2018** and **IJCV 2020**.

Honors and Awards

2021	**Fred and Mitzie Ruiz Fellowship**, *University of California, Merced*.
	A campus-wide fellowship ⓘ link
Dec. 2018	**Best Student Paper Honorable Mention**, *ACCV 2018*.
	For our work "Unseen Object Segmentation in Videos via Transferable Representations"

Professional Activities

Journal Reviewer	○ International Journal of Computer Vision (IJCV)
	○ IEEE Transactions on Image Processing (TIP)
Conference Reviewer	○ IEEE International Conference on Computer Vision (ICCV), 2021
	○ International Joint Conference on Artificial Intelligence (IJCAI), 2021
	○ IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2021
	○ AAAI Conference on Artificial Intelligence (AAAI), 2021
	○ IEEE Winter Conference on Applications of Computer Vision (WACV), 2020
	○ IEEE International Conference on Advanced Video and Signal-based Surveillance (AVSS), 2019

Teaching Experience

Teaching Assistant	**EECS, University of California, Merced**.
	○ CSE 106: Exploratory Computing (Fall 2021)
	○ CSE 185: Introduction to Computer Vision (Spring 2021)
	○ CSE 015: Discrete Mathematics (Fall 2020)
	○ CSE 031: Computer Organization (Spring 2020)
	○ CSE 020: Introduction to Computing [Java Programming] (Fall 2019)

Selected Courses

○ Machine Learning and Having it Deep and Structured ○ Deep Learning for Computer Vision
○ Digital Visual Effects ○ Digital Speech Processing ○ Advanced Digital Signal Processing

Skills

Programming	Python, C/C++
Toolbox/Software	PyTorch, TensorFlow, Caffe, MATLAB, OpenCV

References

Ph.D. Advisor **Ming-Hsuan Yang**, *Professor*, University of California, Merced, CA, USA.
✉ mhyang@ucmerced.edu ⓘ homepage

Research Mentor **Yi-Hsuan Tsai**, *Research Scientist*, NEC Laboratories America, CA, USA.
✉ wasidennis@gmail.com ⓘ homepage

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