

Yi-Wen Chen

Curriculum Vitae

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Research Interests

My research interests lie in **computer vision** and **deep learning**.

- Video Object Segmentation
- Representation Learning
- Vision and Language

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

Publications

IJCV 2019 **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, 2019

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 **Oral Presentation**

Research and Work Experience

Research Intern **ASUS Intelligent Cloud Services, Taipei, Taiwan.**

May. 2019 – Jul. 2019
Mentor: Tai-Yi Huang, 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
Advisor: 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 2019**.

Professional Activities

Conference Reviewer.

- IEEE Winter Conference on Applications of Computer Vision (WACV), 2020
- IEEE International Conference on Advanced Video and Signal-based Surveillance (AVSS), 2019

Honors and Awards

Dec. 2018 **Best Student Paper Award Honorable Mention, ACCV 2018.**
For our work "Unseen Object Segmentation in Videos via Transferable Representations"

Teaching Experience

Teaching Assistant **EECS, University of California, Merced.**
◦ 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
- Time-Frequency Analysis and Wavelet Transform
- Algorithms

Skills

Programming C/C++, Python, MATLAB
Toolkit PyTorch, TensorFlow, Keras, Caffe

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.
✉ ytsai@nec-labs.com ⓘ [homepage](#)

Research Advisor **Yen-Yu Lin**, *Professor*, National Chiao Tung University, Hsinchu, Taiwan.
✉ lin@cs.nctu.edu.tw ⓘ [homepage](#)