Yi-Wen Chen

Curriculum Vitae

311 Science and Engineering Building 2
UC Merced, CA 95343
+1-209-628-7460
ychen319@ucmerced.edu
wenz116.github.io

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 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 — **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 2020**.

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 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)
- CSE 031: Computer Organization (Spring 2020)

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