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 2020	**VOSTR: Video Object Segmentation via Transferable Representations**.
	<u>Yi-Wen Chen</u>, 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**.
	<u>Yi-Wen Chen</u>, 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**.
	<u>Yi-Wen Chen</u>, 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)
- CSE 015: Discrete Mathematics (Fall 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 ℹ homepage

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

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