Yi-Wen Chen

Curriculum Vitae

311 Science and Engineering Building 2

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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 1 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

ACCV 2020 Regularizing Meta-Learning via Gradient Dropout.

Hung-Yu Tseng*, <u>Yi-Wen Chen</u>*, 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.

<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 <u>Best Student Paper Honorable Mention</u>

Research and Work Experience

Research Intern ByteDance Al Lab, Mountain View, CA, USA.

May 2020 - Aug. 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

 $Mentors: \ Tai-Yi \ Huang, \ Allen \ Kao, \ and \ Cheng-Hsien \ Han$

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

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.

Professional Activities

- Journal Reviewer IEEE Transactions on Image Processing (TIP)

 - Conference Association for the Advancement of Artificial Intelligence (AAAI), 2021
 - o International Joint Conference on Artificial Intelligence (IJCAI), 2021 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 015: Discrete Mathematics (Fall 2020)
- CSE 031: Computer Organization (Spring 2020)
- o CSE 020: Introduction to Computing [Java Programming] (Fall 2019)

Selected Courses

 Machine Learning and Having it Deep and Structured
 Deep Learning for Computer Vision Opigital Visual Effects Opigital 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.

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Research Mentor Yi-Hsuan Tsai, Research Scientist, NEC Laboratories America, CA, USA.

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Research Mentor Yen-Yu Lin, Professor, National Chiao Tung University, Hsinchu, Taiwan.

lin@cs.nctu.edu.tw 1 homepage