# 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 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

### Research Interests

My research interests lie in computer vision and deep learning.

Video Object Segmentation
 Representation Learning
 Vision and Language

# **Publications**

ACCV 2020 Regularizing Meta-Learning via Gradient Dropout.

Hung-Yu Tseng\*,  $\underline{\text{Yi-Wen Chen}}$ \* (\* 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.

<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 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: 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.

IEEE International Conference on Advanced Video and Signal-based Surveillance (AVSS), 2019

Papers are accepted to ACCV 2018 and IJCV 2020.

# **Professional Activities**

- Journal Reviewer IEEE Transactions on Image Processing (TIP)

  - Conference International Joint Conference on Artificial Intelligence (IJCAI), 2021
- o IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2021 Association for the Advancement of Artificial Intelligence (AAAI), 2021
- IEEE Winter Conference on Applications of Computer Vision (WACV), 2020

# 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 Python, C/C++

Toolbox/Software PyTorch, TensorFlow, Caffe, MATLAB, OpenCV

#### 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.

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