Yi-Wen Chen

Curriculum Vitae

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Education

Ph.D. Candidate — **University of California, Merced**, CA, USA.
2019 – Present, Electrical Engineering and Computer Science
Vision and Learning Lab ⓘ link
Advisor: Prof. Ming-Hsuan Yang
GPA: 4.0/4.0

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**.
○ Vision and Language   ○ Video Object Segmentation   ○ Image Synthesis

Publications (ⓘ Google Scholar profile) (* equal contribution)

Under Review — **A paper on Entity Grounding via Large Language Model**.
Lu Qi*, <u>Yi-Wen Chen</u>*, Lehan Yang, Tiancheng Shen, Xiangtai Li, Weidong Guo, Yu Xu, and Ming-Hsuan Yang

arXiv 2023 — **Text-Driven Image Editing via Learnable Regions**.
Yuanze Lin, <u>Yi-Wen Chen</u>, Yi-Hsuan Tsai, Lu Jiang, and Ming-Hsuan Yang
ⓘ paper

IJCV 2022 — **Understanding Synonymous Referring Expressions via Contrastive Features**.
<u>Yi-Wen Chen</u>, Yi-Hsuan Tsai, and Ming-Hsuan Yang
International Journal of Computer Vision   ⓘ paper

WACV 2022 — **Video Salient Object Detection via Contrastive Features and Attention Modules**.
<u>Yi-Wen Chen</u>, Xiaojie Jin, Xiaohui Shen, and Ming-Hsuan Yang
IEEE Winter Conference on Applications of Computer Vision, 2022   ⓘ paper

NeurIPS 2021 — **End-to-end Multi-modal Video Temporal Grounding**.
<u>Yi-Wen Chen</u>, Yi-Hsuan Tsai, and Ming-Hsuan Yang
Neural Information Processing Systems, 2021   ⓘ paper

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   ⓘ paper

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   ⓘ paper

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   ⓘ paper

ACCV 2018 / Oral — **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   ⓘ paper
Best Student Paper Honorable Mention

Research and Work Experience

Research Intern · **Microsoft Research**, Seattle, WA, USA.
- Mar. 2023 – Jun. 2023
- Mentor: Yen-Chun Chen
- Project: Personalized Text-to-Video Generation

Student Researcher · **Google Research**, Seattle, WA, USA.
- May 2022 – Dec. 2022
- Mentor: Boqing Gong, Tianyi Zhou
- Project: Curriculum Learning for Visual Continued Pretraining

Student Researcher · **Google Research**, Mountain View, CA, USA.
- Jan. 2022 – May 2022
- Mentor: Lu Jiang
- Project: Text-Driven Image Editing

Research Intern · **Snap Research**, Santa Monica, CA, USA.
- May 2021 – Aug. 2021
- Mentors: Hsin-Ying Lee, Jian Ren, and Sergey Tulyakov
- Project: Complex Scene Generation with Object-Centric Generators

Research Intern · **ByteDance AI Lab**, Mountain View, CA, USA.
- May 2020 – Dec. 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

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, Unseen Object Segmentation in Videos

Honors and Awards

Fellowship · **Graduate Dean's Dissertation Fellowship**, *University of California, Merced, 2024.*

Fellowship · **Fred and Mitzie Ruiz Fellowship**, *University of California, Merced, 2021, 2022.*

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

Professional Activities

Journal Reviewer
- International Journal of Computer Vision (IJCV)
- IEEE Transactions on Image Processing (TIP)

Conference Reviewer
- IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2021, 2022, 2023, 2024
- IEEE International Conference on Computer Vision (ICCV), 2021, 2023
- European Conference on Computer Vision (ECCV), 2022
- IEEE Winter Conference on Applications of Computer Vision (WACV), 2020, 2022, 2023
- International Joint Conference on Artificial Intelligence (IJCAI), 2021, 2023
- AAAI Conference on Artificial Intelligence (AAAI), 2021, 2022
- IEEE International Conference on Advanced Video and Signal-based Surveillance (AVSS), 2019

Teaching Experience

Teaching Assistant **EECS, University of California, Merced**.
- CSE 015: Discrete Mathematics (Spring 2022)
- CSE 106: Exploratory Computing (Fall 2021)
- CSE 185: Introduction to Computer Vision (Spring 2021)
- CSE 015: Discrete Mathematics (Fall 2020)
- CSE 031: Computer Organization (Spring 2020)
- CSE 020: Introduction to Computing [Java Programming] (Fall 2019)

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.
✉ mhyang@ucmerced.edu ⓘ homepage

Internship Mentor **Hsin-Ying Lee**, *Research Scientist*, Snap Research, CA, USA.
✉ hlee5@snap.com ⓘ homepage

Research Mentor **Yi-Hsuan Tsai**, *Research Scientist*, Google, CA, USA.
✉ wasidennis@gmail.com ⓘ homepage

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