Chun-Han (Hank) Yao

Curriculum Vitae

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Education

Ph.D. **University of California, Merced**, CA, USA
2019 – 2023, Electrical Engineering and Computer Science
Vision and Learning Lab
Advisor: Ming-Hsuan Yang
GPA: 4.0/4.0

Master of Science **University of California, San Diego**, CA, USA
2017 – 2019, Computer Science
overall GPA: 3.97/4.0

Bachelor of Science **National Taiwan University**, Taipei, Taiwan
2012 – 2016, Electrical Engineering
major GPA: 4.17/4.3

Publications

arXiv 2024 **SV4D: Dynamic 3D Content Generation with Multi-Frame and Multi-View Consistency [page]**
Yiming Xie*, Chun-Han Yao*, Vikram Voleti, Huaizu Jiang, Varun Jampani (*equal contributions)
arXiv preprint, 2024

ECCV 2024 **SV3D: Novel Multi-view Synthesis and 3D Generation from a Single Image using Latent Video Diffusion [page]**
Vikram Voleti*, Chun-Han Yao*, Mark Boss*, Adam Letts, David Pankratz, Dmitry Tochilkin, Christian Laforte, Robin Rombach, Varun Jampani* (*core contributions)
European Conference on Computer Vision (ECCV), 2024

CVPR 2024 **ANIM: Accurate Neural Implicit Model for Human Reconstruction from a single RGB-D image [page]**
Marco Pesavento, Yuanlu Xu, Nikolaos Sarafianos, Robert Maier, Ziyan Wang, Chun-Han Yao, Marco Volino, Edmond Boyer, Adrian Hilton, Tony Tung
Conference on Computer Vision and Pattern Recognition (CVPR), 2024

NeurIPS 2023 **ARTIC3D: Learning Robust Articulated 3D Shapes from Noisy Web Image Collections [page]**
Chun-Han Yao, Amit Raj, Wei-Chih Hung, Yuanzhen Li, Michael Rubinstein, Ming-Hsuan Yang, Varun Jampani
Neural Information Processing Systems (NeurIPS), 2023

CVPR 2023 **Hi-LASSIE: High-Fidelity Articulated Shape and Skeleton Discovery from Sparse Image Ensemble [page]**
Chun-Han Yao, Wei-Chih Hung, Yuanzhen Li, Michael Rubinstein, Ming-Hsuan Yang, Varun Jampani
Conference on Computer Vision and Pattern Recognition (CVPR), 2023

NeurIPS 2022 **LASSIE: Learning Articulated Shapes from Sparse Image Ensemble via 3D Part Discovery [page]**
Chun-Han Yao, Wei-Chih Hung, Yuanzhen Li, Michael Rubinstein, Ming-Hsuan Yang, Varun Jampani
Neural Information Processing Systems (NeurIPS), 2022

ECCV 2022 **Learning Visibility for Robust Dense Human Body Estimation (VisDB) [page]**
Chun-Han Yao, Jimei Yang, Duygu Ceylan, Yi Zhou, Yang Zhou Ming-Hsuan Yang
European Conference on Computer Vision (ECCV), 2022

WACV 2022 **Federated Multi-target Domain Adaptation (DualAdapt) [paper]**
Chun-Han Yao, Boqing Gong, Yin Cui, Hang Qi, Yukun Zhu, Ming-Hsuan Yang
Winter Conference on Applications of Computer Vision (WACV), 2022

ICCV 2021 **Discovering 3D Parts from Image Collections [page]**
Chun-Han Yao, Wei-Chih Hung, Varun Jampani, Ming-Hsuan Yang
International Conference on Computer Vision (ICCV), 2021

ECCV 2020 **Video Object Detection via Object-level Temporal Aggregation [paper]**
Chun-Han Yao, Chen Fang, Xiaohui Shen, Yangyue Wan, Ming-Hsuan Yang
European Conference on Computer Vision (ECCV), 2020

WACV 2020 **Progressive Domain Adaption for Object Detection [github]**
Han-Kai Hsu, Chun-Han Yao, Yi-Hsuan Tsai, Wei-Chih Hung, Hung-Yu Tseng, Maneesh Singh, Ming-Hsuan Yang
Winter Conference on Applications of Computer Vision (WACV), 2020

ACMMM 2017 **Occlusion-aware Video Temporal Consistency [paper]**
Chun-Han Yao, Chia-Yang Chang, Shao-Yi Chien
ACM Multimedia (MM), 2017

ICME 2016 **Example-based Video Color Transfer [paper]**
Chun-Han Yao, Chia-Yang Chang, Shao-Yi Chien
IEEE International Conference on Multimedia and Expo (ICME), 2016

Research and Work Experience

Research Scientist **Stability AI**, CA, USA
- Jan. 2024 – Present
- Manager: Varun Jampani
- Project: SV3D, 4D generation

Research Scientist Intern **Reality Labs Research (Meta)**, Sausalito, CA, USA
- Jun. 2023 – Oct. 2024
- Mentors: Tony Tung, Nikolaos Sarafianos
- Project: Reconstructing Clothed Human Body from Monocular RGBD Images

Student Researcher **Google Research**, Mountain View, CA, USA
- Feb. 2022 – Jun. 2023
- Mentor: Varun Jampani
- Project: 3D Articulated Shapes from Sparse Image Ensemble (LASSIE, Hi-LASSIE, ARTIC3D)

Research Intern **Adobe Research**, San Jose, CA, USA
- Mar. 2021 – Jan. 2022
- Mentor: Jimei Yang
- Project: Learning Visibility for Robust Dense Human Body Estimation (VisDB)

Research Intern **Google Research**, Mountain View, CA, USA
- Mar. 2020 – Mar. 2021
- Mentor: Boqing Gong
- Project: Federated Multi-target Domain Adaptation (DualAdapt)

Research Intern **Bytedance AI Lab**, Palo Alto, CA, USA
- Mar. 2019 – Aug. 2019
- Mentors: Xiaohui Shen, Chen Fang, Yangyue Wan
- Project: Real-time Video Object Detection by Tracking

Research Assistant — **CSE, University of California, San Diego**, CA, USA
- Mar. 2018 – Dec. 2018
- Advisor: Manmohan Chandraker
- Project: 3D Reconstruction for Defect Detection via Generative Adversarial Networks

Software Engineer Intern — **Verizon Media (Oath/Yahoo)**, Sunnyvale, CA, USA
- Jun. 2018 – Sep. 2018
- Mentors: Sridharan P, Umang Patel
- Projects: Content Extraction from Images (Coupon Detection, Optical Character Recognition, Name Entity Recognition)

Research Assistant — **CSE, University of California, San Diego**, CA, USA
- Sep. 2017 – Jun. 2018
- Advisor: Chung-Kuan Cheng
- Projects: BCG and fMRI Brain Image Analysis, System Power Optimization

Research Intern — **DT42**, Taipei, Taiwan
- Apr. 2017 – Aug. 2017
- Project: Object Detection for Video Surveillance Systems (YOLO, Faster-RCNN)

Research Assistant — **EE, National Taiwan University**, Taipei, Taiwan
- Feb. 2015 – Sep. 2016
- Advisor: Shao-Yi Chien
- Projects: Video Temporal Consistency, Video Color Transfer

Research Assistant — **MediaTek**, Taipei, Taiwan
- Aug. 2015 – Sep. 2016
- Advisor: Hung-Yu Wei
- Project: Scheduling and Power Allocation for Millimeter-wave Mobile Wireless Networks

Honors and Awards

Fellowship — **Graduate Student Opportunity Program Fellowship**, UC Merced, Aug. 2022
Top 2 research achievement

Fellowship — **Bobcat Fellowship**, UC Merced, Jan. 2022
Outstanding academic achievement

Award — **Undergraduate Innovation Award**, EE, National Taiwan University, Jun. 2016
Top 3 research projects

Award — **Presidential Award**, National Taiwan University, Jan. 2009, Jun. 2009
Top 5% in the department

Teaching Experience

Teaching Assistant — **EECS, University of California**, Merced, CA, USA
- CSE 185: Introduction to Computer Vision (Spring 2021)
- CSE 005: Introduction to Computer Applications (Fall 2020)
- CSE 140: Computer Architecture (Spring 2020)
- CSE 020: Introduction to Computing [Java Programming] (Fall 2019)

Technical Skills

Programming — Proficient (10+ years) in Python
Familiar (3+ years) with C++, Java, JavaScript, R, Verilog

Toolbox/Software — PyTorch, TensorFlow, MATLAB, OpenCV, Spark, LabVIEW

Hardware — FPGA, Arduino, USRP

References

Manager **Varun Jampani**, *Lead Researcher*, Stability AI
✉ varunjampani@gmail.com

Ph.D. Advisor **Ming-Hsuan Yang**, *Professor*, University of California, Merced
✉ mhyang@ucmerced.edu

Internship Mentor **Jimei Yang**, *Research Scientist*, Adobe
✉ jimyang@adobe.com

Internship Mentor **Boqing Gong**, *Research Scientist*, Google
✉ boqinggo@outlook.com

Internship Mentor **Chen Fang**, *Research Scientist*, Bytedance AI Lab
✉ fangchen@bytedance.com

Research Advisor **Manmohan Chandraker**, *Professor*, University of California, San Diego
✉ mkchandraker@eng.ucsd.edu

Research Advisor **Shao-Yi Chien**, *Professor*, National Taiwan University
✉ sychien@ntu.edu.tw