Chun-Han Yao

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 ℹ️ link Advisor: Ming-Hsuan Yang
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 (top 5%)

━━━ Publications

NeurIPS 2022
(under review)
Learning Articulated Shape from Sparse Image Ensemble
<u>Chun-Han Yao</u> et al.
Neural Information Processing Systems (NeurIPS), 2022

ECCV 2022
(under review)
Visibility-aware Dense Human Body Estimation
<u>Chun-Han Yao</u> et al.
European Conference on Computer Vision (ECCV), 2022

WACV 2022
Federated Multi-Target Domain Adaptation [paper]
<u>Chun-Han Yao</u>, 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]
<u>Chun-Han Yao</u>, 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]
<u>Chun-Han Yao</u>, 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, <u>Chun-Han Yao</u>, 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]
<u>Chun-Han Yao</u>, Chia-Yang Chang, Shao-Yi Chien
ACM Multimedia (MM), 2017

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

Research and Work Experience

Research Intern **Adobe Research**, San Jose, CA, USA
- Mar. 2021 –
- Mentor: Jimei Yang
- Topic: Dense 3D Human Pose

Research Intern **Google Research**, Mountain View, CA, USA
- Mar. 2020 – Mar. 2021
- Mentor: Boqing Gong
- Topic: Domain Adaptation in Federated Learning

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

Research Assistant **CSE, University of California, San Diego**, CA, USA
- Mar. 2018 – Dec. 2018
- Advisor: Manmohan Chandraker
- Topic: 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
- Project: Content Extraction from Coupon 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
- Topics: BCG and fMRI Brain Image Analysis, System Power Optimization

Research Intern **DT42**, Taipei, Taiwan
- Apr. 2017 – Aug. 2017
- Topic: 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
- Topics: Video Temporal Consistency, Computational Photography, Multimedia

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

Course Projects

Reinforcement Learning **Imitation Learning from Sub-optimal Demonstrations**, *UCSD*, CA
- Mar. 2018 – Jun. 2018
- Instructor: Michael Yip
- Extended DDPG with augmented loss and adaptive exploration for tasks in OpenAI Gym (Python)

Neural Networks **Nuclei Segmentation for Diverse Medical Images**, *UCSD*, CA
- Jan. 2018 – Mar. 2018
- Instructor: Garison Cottrell
- Achieved 0.413 mAP (top 10% on Kaggle leaderboard) with U-Net and FCN (Python)

Convex Optimization	**3D Shape Estimation via Convex Relaxation Methods**, *UCSD*, CA
	○ Jan. 2018 – Mar. 2018
	○ Instructor: Chung-Kuan Cheng
	○ Predicted 3D shape of human bodies from single images (MATLAB)

Honors and Awards

Award	**Undergraduate Innovation Award**, EE, National Taiwan University, Jun. 2016
	Top 3 research projects
Award	**Presidential Award**, *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 (5+ years) in Python, C++
	Familiar (2+ years) with Java, JavaScript, R, Verilog
Toolbox/Software	PyTorch, TensorFlow, MATLAB, OpenCV, Spark, LabVIEW
Hardware	FPGA, Arduino, USRP

References

Ph.D. Advisor	**Ming-Hsuan Yang**, *Professor*, University of California, Merced
	✉ mhyang@ucmerced.edu ⓘ homepage
Research Collaborator	**Varun Jampani**, *Research Scientist*, Google
	✉ varunjampani@gmail.com ⓘ homepage
Internship Mentor	**Jimei Yang**, *Research Scientist*, Adobe
	✉ jimyang@adobe.com ⓘ homepage
Internship Mentor	**Boqing Gong**, *Research Scientist*, Google
	✉ boqinggo@outlook.com ⓘ homepage
Internship Mentor	**Chen Fang**, *Research Scientist*, Bytedance AI Lab
	✉ fangchen@bytedance.com ⓘ homepage
Research Advisor	**Manmohan Chandraker**, *Professor*, University of California, San Diego
	✉ mkchandraker@eng.ucsd.edu ⓘ homepage
Research Advisor	**Shao-Yi Chien**, *Professor*, National Taiwan University
	✉ sychien@ntu.edu.tw ⓘ homepage