Yu-Ying Yeh

Mail: yyyeh@meta.com

Page: https://yuyingyeh.github.io

University of California San Diego, La Jolla, CA Education

Ph.D., Computer Science

Sep. 2018 - Jun. 2024

GPA: 3.91/4.00

National Taiwan University, Taipei, Taiwan

B.Sc., Physics and B.A., Economics

Sep. 2010 - Jun. 2015

GPA: 3.80/4.30

Research Interest

Computer Vision, Inverse Rendering, Generative AI for 3D Content Creation,

Neural Rendering

Experience Research Scientist

Meta Reality Lab

Burlingame, CA Jun. 2024 - Present

• Computer Vision for Mixed and Virtual Reality

Research Intern

Meta Reality Lab

Redmond, WA

Jun. 2023 - Jan. 2024

Collaborators: Zhengqin Li, Zhao Dong, Jia-Bin Huang, Changil Kim, Thu Nguyen-Phuoc, Carl Marshall, Lei Xiao, Cheng Zhang, Numair Khan

• Relightable Appearance Transfer for Objects and Indoor Scene. [1]

Research Intern

NVIDIA Research

Remote, CA

Jun. 2021 - Sep. 2021

Mentors: Ming-Yu Liu, Ting-Chun Wang, Koki Nagano, Sameh Khamis, Jan Kautz

• Single Image Portrait Relighting. [2]

Research Intern

Adobe Research

Remote, CA

La Jolla, CA

Jun. 2020 - Sep. 2020

Sep. 2018 - Present

Mentors: Kalyan Sunkavalli, Milos Hasan, Yannick Hold-Geoffroy, Zexiang Xu

• Material and Lighting Transfer for Indoor Scenes. [3]

Graduate Student Researcher

University of California, San Diego

Advisor: Prof. Manmohan Chandraker

• Material and Lighting Transfer for Indoor Scenes [3]

- OpenRooms: Photorealistic Synthetic Indoor Scene Dataset [4]
- Transparent Shape Reconstruction [5]

Research Assistant

Academia Sinica & NTU

Taipei, Taiwan Oct. 2016 - Aug. 2018

Advisor: Prof. Yu-Chiang Frank Wang

- Generative Model for Video Generation and Inference [6]
- Cross-Domain Disentangled Representation Learning [7,8]

Honors / Awards Google PhD Fellowship [CSE News]

2022 - 2024

Meta PhD Fellowship Finalist

2022

Qualcomm Innovative Fellowship Finalist

2022

Selected **Publications** [1] Y.-Y. Yeh, J.-B. Huang, C. Kim, L. Xiao, T. Nguyen-Phuoc, N. Khan, C. Zhang, M. Chandraker, C. S Marshall, Z. Dong, Z. Li. TextureDreamer: Image-guided texture synthesis through Geometry-aware Diffusion, IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2024

- [2] Y.-Y. Yeh, K. Nagano, S. Khamis, J. Kautz, M.-Y. Liu, T.-C. Wang. Learning to Relight Portrait Images via a Virtual Light Stage and Synthetic-to-Real Adaptation., ACM Transactions on Graphics (SIGGRAPH Asia), 2022 [3] Y.-Y. Yeh, Z. Li, Y. Hold-Geoffroy, R. Zhu, Z. Xu, M. Hasan, K. Sunkavalli, M. Chandraker. PhotoScene: Photorealistic Material and Lighting Transfer for Indoor Scenes., IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2022
- [4] Z. Li, T.-Y. Yu, S. Sang, S. Wang, M. Song, Y. Liu, <u>Y.-Y. Yeh</u>, R. Zhu, N. Gundavarapu, J. Shi, S. Bi, Z. Xu, H.-X. Yu, K. Sunkavalli, M. Hasan, R. Ramamoorthi, M. Chandraker. OpenRooms: An Open Framework for Photorealistic Indoor Scene Datasets., *IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*, 2021 (Oral)
- [5] <u>Y.-Y. Yeh*</u>, Z. Li*, M. Chandraker. Through the Looking Glass: Neural 3D Reconstruction of Transparent Shapes., *IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*, 2020. (Oral) (*equal contribution)
- [6] Y.-Y. Yeh, Y.-C. Liu, W.-C. Chiu, Y.-C. F. Wang. Static2Dynamic: Video Inference from a Deep Glimpse, *IEEE Transactions on Emerging Topics in Computational Intelligence*, 2020
- [7] A. Liu, Y.-C. Liu, <u>Y.-Y Yeh</u>, Y.-C. F. Wang. A Unified Feature Disentangler for Multi-Domain Image Translation and Manipulation, *Conference on Neural Information Processing Systems (NeurIPS)*, 2018
- [8] Y.-C. Liu, <u>Y.-Y Yeh</u>, T.-C. Fu, S.-D. Wang, W.-C. Chiu, Y.-C. F. Wang. Detach and Adapt: Learning Cross-Domain Disentangled Deep Representation, *IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*, 2018 (Spotlight)

Teaching Experience

Teaching Assistant @ University of California San Diego	La Jolla, CA
Intro to Computer Vision, Prof. Hao Su	Jan. 2022 - Mar. 2022
Advanced Computer Vision, Prof. Manmohan Chandraker	Apr. 2021 - Jun. 2021
Domain Adaptation in CV, Prof. Manmohan Chandraker	Jan. 2020 - Mar. 2020
Intro to Computer Vision, Prof. David Kriegman	Apr. 2019 - Jun. 2019
Intro to Computer Vision, Prof. Manmohan Chandraker	Jan. 2019 - Mar. 2019

Academic Services

Reviewer: ICCV '19, AAAI '20, CVPR '20, ECCV '20, NeurIPS '20, ICLR '21, CVPR '21, ICCV'21, NeurIPS'21, CVPR'22, ECCV'22, NeurIPS'22, CVPR'23, IROS'23, ICCV'23, SIGGRAPH ASIA'23, CVPR'24, ECCV'24, SIGGRAPH ASIA'24, CVPR'25, ICCV'25, Computer Graphics Forum, TPAMI

Workshop Organizer: GeoNet @ ICCV23

Skills

 $\begin{cal} {\bf Computer} \begin{cal} {\bf Languages:} \\ {\bf C}, \ {\bf C}++, \ {\bf Bash}, \ {\bf Python}, \ {\bf MATLAB}, \ {\bf LAT_EX}. \\ \end{cal}$

Toolbox/Software: PyTorch, TensorFlow, Maya, Blender.

Languages: Chinese Mandarin (Native), English (Fluent), Japanese (Basic).