Yu-Ying Yeh

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Page: https://yuyingyeh.github.io

Education

University of California San Diego, La Jolla, CA

Ph.D. student, Computer Science and Engineering Sep. 2019 - Present Sep. 2018 - Jun. 2019 Master's student, Computer Science and Engineering

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

Research Experience Research Intern

Meta Reality Lab Redmond, WA Jun. 2023 - Present

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.

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

Jun. 2020 - Sep. 2020 Remote, CA

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

La Jolla, CA

Sep. 2018 - Present

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

2022 - 2024

Meta PhD Fellowship Finalist Qualcomm Innovative Fellowship Finalist 2022 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, To be appear on ArXiv, 2023

[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] <u>Y.-Y. Yeh</u>, 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, Computer Graphics Forum Workshop Organizer: GeoNet @ ICCV23

Skills

Computer Languages: C, C++, Bash, Python, MATLAB, IATEX.

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

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