Yu-Ying Yeh

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Education

University of California San Diego, La Jolla, CA
Ph.D. student, Computer Science and Engineering — Sep. 2018 - Present
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. [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 — Jun. 2020 - Sep. 2020
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 [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, *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] **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, **Y.-Y. Yeh**, 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] **Y.-Y. Yeh***, 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, **Y.-Y Yeh**, 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, **Y.-Y Yeh**, 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, LaTeX.
Toolbox/Software: PyTorch, TensorFlow, Maya, Blender.
Languages: Chinese Mandarin (Native), English (Fluent), Japanese (Basic).