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 - 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 — 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, *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, **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, ECCV'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).