

# YU-YING YEh

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## EDUCATION

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### University of California San Diego (UCSD)

*Ph.D. Student, Computer Science and Engineering, Overall GPA: 3.91/4.00*  
*Master's Student, Computer Science and Engineering*

La Jolla, CA

*Sep. 2019 - Present*  
*Sep. 2018 - Jun. 2019*

### National Taiwan University (NTU)

*B.Sc. in Physics and B.A. in Economics, Overall GPA: 3.80/4.30*

Taipei, Taiwan

*Sep. 2010 - Jun. 2015*

## RESEARCH EXPERIENCE

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### Center of Visual Computing, University of California, San Diego

*Graduate Research Assistant, Supervised by Prof. Manmohan Chandraker*

La Jolla, CA

*Sep. 2018 - Present*

- **Transparent Shape Reconstruction [1]:** Built a physically-based network to recover 3D shape information from transparent object 2D images

### Adobe Research

*Research Intern, Supervised by Dr. Kalyan Sunkavalli*

San Jose, CA

*Jun. 2020 - Sep. 2020*

- **Material Enhancement:** Hallucinate physically-based rendering (PBR) materials for augmented reality applications to enable more photorealistic rendering results.

### National Taiwan University and Academia Sinica

*Research Assistant, Supervised by Prof. Yu-Chiang Frank Wang*

Taipei, Taiwan

*Oct. 2016 - Aug. 2018*

- **Video Generation/Inference [2]:**  
Generated full-length videos given frames occurring on specific timing;  
Leveraged image-based and temporal-based deep generative models and recurrent neural networks
- **Feature Disentanglement & Multi-Domain Image Translation/Manipulation [3]:** Learned domain-invariant representation with a unified architecture for multi-domain image translation and manipulation
- **Cross-Domain Image Synthesis & Disentangled Representation Learning [4]:**  
First work to address adaptation of feature disentanglement and learn cross-domain disentangled representation  
Conducted cross-domain image synthesis and translation given attribute information
- **Award:** First Place Award in GAN Project Competition 2017, Ministry of Science and Technology, Taiwan

## PUBLICATION

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- [1] **Y.-Y. Yeh\***, Z. Li\*, M. Chandraker. Through the Looking Glass: Neural 3D Reconstruction of Transparent Shapes. In *Conference on Computer Vision and Pattern Recognition (CVPR)*, 2020. (**Oral**) (\*equal contribution)
- [2] **Y.-Y. Yeh**, Y.-C. Liu, W.-C. Chiu, Y.-C. F. Wang. Static2Dynamic: Video Inference from a Deep Glimpse. In *IEEE Transactions on Emerging Topics in Computational Intelligence*, 2020.
- [3] A. Liu, Y.-C. Liu, **Y.-Y. Yeh**, Y.-C. F. Wang. A Unified Feature Disentangler for Multi-Domain Image Translation and Manipulation. In *Conference on Neural Information Processing Systems (NeurIPS)*, 2018.
- [4] 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. In *Conference on Computer Vision and Pattern Recognition (CVPR)*, 2018. (**Spotlight Presentation**)
- [5] Y.-J. Li, F.-E. Yang, Y.-C. Liu, **Y.-Y. Yeh**, X. Du, & Y.-C. F. Wang. Adaptation and Re-Identification Network: An Unsupervised Deep Transfer Learning Approach to Person Re-Identification. In *IEEE Conference on Computer Vision and Pattern Recognition Workshops (CVPR workshop)*, 2018.

## ACADEMIC SERVICE

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**Conference Reviewer :** ICCV'19, AAAI'20, CVPR'20, ECCV'20, NeurIPS'20

## TEACHING EXPERIENCE

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<b>Domain Adaptation in Computer Vision, University of California, San Diego</b>	Jan. 2020 - Mar. 2020
<i>Teaching Assistant, Instructed by Prof. Manmohan Chandraker</i>	<i>La Jolla, CA</i>
<b>Intro to Computer Vision, University of California, San Diego</b>	Apr. 2019 - Jun. 2019
<i>Teaching Assistant, Instructed by Prof. David Kriegman</i>	<i>La Jolla, CA</i>
<b>Intro to Computer Vision, University of California, San Diego</b>	Jan. 2019 - Mar. 2019
<i>Teaching Assistant, Instructed by Prof. Manmohan Chandraker</i>	<i>La Jolla, CA</i>
<b>Deep Learning Crash Course for New Lab Members, National Taiwan University</b>	Jul. 2018
<i>Lecturer of Introduction to Neural Network and Convolutional Neural Network</i>	<i>Taipei, Taiwan</i>
<b>Deep Learning for Computer Vision, National Taiwan University</b>	Mar. 2018 - Jun. 2018
<i>Teaching Assistant, Instructed by Prof. Yu-Chiang Frank Wang</i>	<i>Taipei, Taiwan</i>
<b>Algorithms, National Taiwan University</b>	Sep. 2017 - Jan. 2018
<i>Teaching Assistant, Instructed by Prof. Yu-Chiang Frank Wang</i>	<i>Taipei, Taiwan</i>

## SELECTED PROJECTS

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<b>Machine Learning meets Geometry</b>	Jan. 2020 - Mar. 2020
<i>Course project, Instructed by Prof. Hao Su</i>	<i>Dept. of Computer Science and Engineering, UCSD</i>
<ul style="list-style-type: none"><li>· Implement PyTorch version of Isospectralization, an optimization method for shape deformation, style transfer, and shape matching. Apply the algorithm to large shape repository, ShapeNet.</li></ul>	
<b>Selected Topics in Graphics</b>	Sep. 2018 - Dec. 2018
<i>Course project, Instructed by Prof. Ravi Ramamoorthi</i>	<i>Dept. of Computer Science and Engineering, UCSD</i>
<ul style="list-style-type: none"><li>· Implement Tensorflow version of recurrent denoising autoencoder from scratch for interactively reconstruction of Monte Carlo image sequence.</li></ul>	
<b>Operating Systems</b>	Sep. 2016 - Jan. 2017
<i>Course project, Instructed by Prof. Jerry Chou</i>	<i>Dept. of Computer Science, NTHU</i>
<ul style="list-style-type: none"><li>· Improved NachOS, implemented by C++, by adding system call, supporting multi-programming, implementing process scheduling algorithm and supporting file system</li></ul>	

## WORK EXPERIENCE

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<b>Cathay United Bank</b>	Aug. 2015 - Jun. 2016
<i>Assistant Structured Product Manager</i>	<i>Taipei, Taiwan</i>
<ul style="list-style-type: none"><li>· Developed structured products to satisfy clients demand by analyzing market trend</li><li>· Built automatic cash flow calculator for products from Reuters database with Excel VBA</li></ul>	

## POSITION OF RESPONSIBILITY

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<b>NTU Physics Volleyball Team</b>	Feb. 2012 - Jun. 2013
<i>Captain</i>	<i>Taipei, Taiwan</i>
<ul style="list-style-type: none"><li>· Scheduled training courses and instructed core knowledge of volleyball to members</li><li>· Led team in college-wide games held in different cities in Taiwan</li></ul>	
<b>Night of Physics: an annual department-wide performance</b>	Sep. 2011 - Mar. 2012
<i>Director</i>	<i>Taipei, Taiwan</i>
<ul style="list-style-type: none"><li>· Spearheaded a team of 70 people to successfully conduct 4-hour performance in student center with more than 300 attendees. Efficiently organized meetings with group leaders and communicated among groups.</li></ul>	

## TECHNICAL STRENGTHS

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<b>Computer Languages</b>	C/C++, Python(TensorFlow), Octave/Matlab, VBA
<b>Software &amp; Tools</b>	Stata, HTML, Excel, L <sup>A</sup> T <sub>E</sub> X
<b>Languages</b>	Chinese Mandarin (Native), English (Fluent), Japanese (Basic)