

# Hsin-Ying Lee

## Curriculum Vitae

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### Education

- 2016–2020 **Ph.D. Student**, *University of California, Merced, CA, USA.*  
Electrical and Computer Engineering  
Vision and Learning Lab [link](#)
- 2015–2016 **Masters of Science**, *University of Southern California, CA, USA.*  
Electrical Engineering
- 2010–2014 **Bachelor of Science**, *National Taiwan University, Taipei, Taiwan.*  
Electrical Engineering

### Work Experience

- July. 2020 - Present **Creative Vision, Snap Inc. CA.**  
Senior Research Scientist.
- May. 2019 - Mar. 2020 **Google Research, Mountain View, CA.**  
Research Intern. *Mentor: Weilong Yang*
- Dec. 2018 - May. 2019 **Google Cloud AI, Sunnyvale, CA.**  
Student Researcher. *Mentor: Lu Jiang, Ming-Hsuan Yang*
- May. 2018 - Nov. 2018 **Nvidia Research, Santa Clara, CA.**  
Research Intern. *Mentor: Xiaodon Yang, Ming-Yu Liu*
- May. 2017 - Aug. 2017 **Google Video Content Analysis, Mountain View.**  
Intern. *Mentor: Min-Hsuan Tsai*
- Aug. 2016 – May. 2020 **Vision and Learning Lab, EECS, University of California, Merced.**  
Research Assistant. *Advisor: Ming-Hsuan Yang*

### Publications [\(Google Scholar profile\)](#)

- CVPR 2023 **3DAvatarGAN: Bridging Domains for Personalized Editable Avatars.**  
Rameen Abdal, [Hsin-Ying Lee](#), Peihao Zhu, Menglei Chai, Aliaksandr Siarohin, Peter Wonka, Sergey Tulyakov
- CVPR 2023 **SDFusion: Multimodal 3D Shape Completion, Reconstruction, and Generation.**  
Yen-Chi Cheng, [Hsin-Ying Lee](#), Sergey Tulyakov, Alexander Schwing, Liangyan Gui
- CVPR 2023 **Make-A-Story: Visual Memory Conditioned Consistent Story Generation.**  
Tanzila Rahman, [Hsin-Ying Lee](#), Jian Ren, Sergey Tulyakov, Shweta Mahajan, Leonid Sigal
- CVPR 2023 (highlight) **DiscoScene: Spatially Disentangled Generative Radiance Field for Controllable 3D-aware Scene Synthesis.**  
Yinghao Xu, Menglei Chai, Zifan Shi, Sida Peng, Ivan Skorokhodov, Aliaksandr Siarohin, Ceyuan Yang, Yujun Shen, [Hsin-Ying Lee](#), Bolei Zhou, Sergey Tulyakov

- CVPR 2023 **Unsupervised Volumetric Animation.**  
Aliaksandr Siarohin, Willi Menapace, Ivan Skorokhodov, Kyle Olszewski, Jian Ren, [Hsin-Ying Lee](#), Menglei Chai, Sergey Tulyakov
- ICLR 2023 (oral) **3D Generation on ImageNet.**  
Ivan Skorokhodov, Aliaksandr Siarohin, Yinghao Xu, Jian Ren, [Hsin-Ying Lee](#), Peter Wonka, Sergey Tulyakov
- WACV 2023 **Adaptively-Realistic Image Generation from Stroke and Sketch with Diffusion Model.**  
Shin-I Cheng, Yu-Jie Chen, Wei-Chen Chiu, [Hsin-Ying Lee](#), Hung-Yu Tseng
- ECCV 2022 **Vector Quantized Image-to-Image Translation.**  
Yu-Jie Chen, Shin-I Cheng, Wei-Chen Chiu, Hung-Yu Tseng, [Hsin-Ying Lee](#)
- ECCV 2022 **Show Me What and Tell Me How: Video Synthesis via Multimodal Conditioning.**  
Ligong Han, Jian Ren, [Hsin-Ying Lee](#), Francesco Barbieri, Kyle Olszewski, Shervin Minaee, Dimitris Metaxas, Sergey Tulyakov
- ECCV 2022 **Cross-Modal 3D Shape Generation and Manipulation.**  
Zezhou Cheng, Menglei Chai, Jian Ren, [Hsin-Ying Lee](#), Kyle Olszewski, Zeng Huang, Subhansu Maji, Sergey Tulyakov
- ICLR 2022 **InfinityGAN: Towards Infinite-Resolution Image Synthesis.**  
Chieh Hubert Lin, [Hsin-Ying Lee](#), Yen-Chi Cheng, Sergey Tulyakov, Ming-Hsuan Yang
- CVPR 2022 **InOut: Diverse Image Outpainting via GAN Inversion.**  
Yen-Chi Cheng, Chieh Hubert Lin, [Hsin-Ying Lee](#), Jian Ren, Sergey Tulyakov, Ming-Hsuan Yang
- NeurIPS 2021 **Exploring cross-video and cross-modality signals for weakly-supervised audio-visual video parsing.**  
Yan-Bo Lin, Hung-Yu Tseng, [Hsin-Ying Lee](#), Yen-Yu Lin, and Ming-Hsuan Yang
- ECCV 2020 **RetrieveGAN: Image Synthesis via Differentiable Patch Retrieval.**  
Hung-Yu Tseng, [Hsin-Ying Lee](#), Lu Jiang, Ming-Hsuan Yang, Weilong Yang
- ECCV 2020 **Controllable Image Synthesis via SegVAE.**  
Yen-Chi Cheng, [Hsin-Ying Lee](#), Min Sun, Ming-Hsuan Yang
- ECCV 2020 **Semantic View Synthesis.**  
Hsin-Ping Huang, Hung-Yu Tseng, [Hsin-Ying Lee](#), Jia-Bin Huang
- ECCV 2020 (spotlight) **Neural Design Network: Graphic Layout Generation with Constraints.**  
[Hsin-Ying Lee](#), Weilong Yang, Lu Jiang, Madison Le, Irfan Essa, Haifeng Gong, Ming-Hsuan Yang
- ICLR 2020 (spotlight) **Cross-Domain Few-Shot Classification via Learned Feature-Wise Transformation .**  
Hung-Yu Tseng, [Hsin-Ying Lee](#), Jia-Bin Huang, Ming-Hsuan Yang  
International Conference on Learning Representations, 2020

- IJCV 2019 **DRIT++: Diverse Image-to-Image Translation via Disentangled Representations.**  
Hsin-Ying Lee\*, Hung-Yu Tseng\*, Qi Mao\*, Jia-Bin Huang, Yu-Ding Lu, Maneesh Kumar Singh, and Ming-Hsuan Yang,  
 International Journal of Computer Vision
- NeurIPS 2019 **Dancing to Music.**  
Hsin-Ying Lee, Xiaodong Yang, Ming-Yu Liu, Ting-Chung Wang, Yu-Ding Lu Ming-Hsuan Yang, and Jan Kautz  
 Conference on Neural Information Processing Systemn, 2019
- ICIP 2019 **Self-supervised Audio Spatialization with Correspondence Classifier.**  
 Yu-Ding Lu, Hsin-Ying Lee, Hung-Yu Tseng, Ming-Hsuan Yang  
 IEEE International Conference on Image Processing, 2019
- CVPR 2019 **Mode Seeking Generative Adversarial Networks for Diverse Image Synthesis.**  
 Mao Qi\*, Hsin-Ying Lee\*, Hung-Yu Tseng\*, and Ming-Hsuan Yang  
 IEEE Conference on Computer Vision and Pattern Recognition, 2019
- ECCV 2018 (oral) **Diverse Image-to-Image Translation via Disentangled Representations.**  
Hsin-Ying Lee\*, Hung-Yu Tseng\*, Jia-Bin Huang, Maneesh Kumar Singh, and Ming-Hsuan Yang,  
 European Conference on Computer Vision, 2018
- ECCV 2018 **Sub-GAN: An Unsupervised Generative Model via Subspaces.**  
 Jie Liang, Jufeng Yang, Hsin-Ying Lee, Kai Wang, and Ming-Hsuan Yang,  
 European Conference on Computer Vision, 2018
- ICCV 2017 **Unsupervised Representation Learning by Sorting Sequence.**  
Hsin-Ying Lee, Jia-Bin Huang, Maneesh Kumar Singh, and Ming-Hsuan Yang,  
 International Conference on Computer Vision, 2017
- TCAD 2017 **NTUplace4dr: a detailed-routing-driven placer for mixed-size circuit designs with technology and region constraints.**  
 Chau-Chin Huang, Hsin-Ying Lee, Bo-Qiao Lin, Sheng-Wei Yang, Chin-Hao Chang, Szu-To Chen, Yao-Wen Chang, Tung-Chieh Chen, Ismail Bustany,  
 IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems
- DAC 2017 **Graph-Based Logic Bit Slicing for Datapath-Aware Placement.**  
 Chau-Chin Huang, Hsin-Ying Lee, Bo-Qiao Lin, Yao-Wen Cheng,  
 Design Automation Conference, 2017
- CVPR 2016 **Soft-Segmentation Guided Object Motion Deblurring.**  
 Jinshan Pan, Zhe Hu, Hsin-Ying Lee, and Ming-Hsuan Yang,  
 Conference on Computer Vision and Pattern Recognition, 2016
- ICCAD 2015 **Detailed-routability-driven analytical placement for mixed-size designs with technology and region constraints.**  
 Chau-Chin Huang, Hsin-Ying Lee, Bo-Qiao Lin, Sheng-Wei Yang, Chin-Hao Chang, Szu-To Chen, Yao-Wen Chang  
 International Conference on Computer-Aided Design, 2015
- Communications Letters 2013 **Bio-inspired Proximity Discovery and Synchronization for D2D Communications.**  
 Shih-Lung Chao, Hsin-Ying Lee, Ching-Chun Chou, and Hung-Yu Wei  
 IEEE Communications Letters, Volume 17, Issue 12, Page 2300 - 2303, Dec. 2013

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## Teaching Experience

- Aug. 2016 – Aug 2018 **EECS, University of California, Merced.**
- CSE 031 Introduction to Computer Science and Engineering (Spring 2016)
  - CSE 020 Introduction to Computing [Java Programming] (Fall 2016)
- Sep. 2012 **EE/CSIE, National Taiwan University, Taipei, Taiwan.**
- Freshmen Programming on HTML, jquery, python, FB app

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## Academic Services

- Organizer CVPR 2021 Tutorial on Unlocking Creativity with Computer Vision: Representations for Animation, Stylization and Manipulation
- Journal Reviewer Computer Vision and Image Understanding (**CVIU**)  
International Journal of Computer Vision (**IJCV**)  
IEEE Transaction on Image Processing (**TIP**)  
IET Computer Vision  
IEEE Transactions on Emerging Topics in Computational Intelligence (**TETCI**)
- Conference Reviewer IEEE Conference on Computer Vision and Pattern Recognition (2017,2018,2019,2020,2021, 2022)  
IEEE Conference on Computer Vision (ICCV 2017, 2019, 2021)  
European Conference on Computer Vision (ECCV 2016, 2018, 2020, 2022)  
SIGGRAPH Asia (SigAsia 2021)  
Neural Information Processing Systems (NeurIPS 2020,2021,2022)
- Senior Program Committee Association for the Advancement of Artificial Intelligence (AAAI 2022, 2023)
- Area Chair British Conference on Machine Vision (BMVC 2021), Computer Vision and Pattern Recognition Conference (CVPR 2023), Conference on Neural Information Processing Systems (NeurIPS 2023)

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## References

- Ph.D. Advisor **Ming-Hsuan Yang**, *Professor*, University of California, Merced.  
✉ [mhyang@ucmerced.edu](mailto:mhyang@ucmerced.edu) [f homepage](#)
- Research Mentor **Sergey Tulyakov**, *Principal Research Scientist*, Google AI.  
✉ [stulyakov@snap.com](mailto:stulyakov@snap.com)
- Research Mentor **Jia-Bin Huang**, *Associate Professor*, University of Maryland.  
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