

Ligong Han

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EDUCATION

Rutgers University	Piscataway, NJ
• Ph.D. in Computer Science	09/2018-Present
Carnegie Mellon University	Pittsburgh, PA
• Research MS. in Biomedical Engineering	08/2015-12/2016
Southeast University	Nanjing, Jiangsu, China
• B. Eng. in Biomedical Engineering	08/2010-06/2014
◦ Chien-Shiung Wu Honor College (Talent Training Program in Electrical and Computer Engineering)	

RESEARCH EXPERIENCE

Rutgers, The State University of New Jersey	Piscataway, NJ, USA
• Research Assistant at CBIM. Advisor: Dimitris Metaxas	09/2018-Present
◦ Generative models, Diffusion models, GANs	
◦ Representation learning, Disentanglement, Domain adaptation	
Google Research	Mountain View, CA, USA
• Research Intern. Mentor: Yinxiao Li , Feng Yang & Han Zhang	06/2022-03/2023
◦ Diffusion model, text-to-image generation, image editing, parameter efficient fine-tuning	
MIT-IBM Watson AI Lab	Cambridge, MA, USA
• Research Intern. Mentor: Akash Srivastava	03/2022-06/2022
◦ Improving contrastive learning with generative models	
Snap Inc.	Santa Monica, CA, USA
• Research Intern in the Creative Vision Group at Snap Research. Mentor: Jian Ren	05/2021-10/2021
◦ Transformer-based video generation with multimodality control signals	
NEC Laboratories America Inc.	Princeton, NJ, USA
• Research Intern at Machine Learning Department. Mentor: Martin Renqiang Min	06/2020-08/2020
◦ Recurrent generative modeling for videos, disentangled sequential representation learning	
Tencent	Shenzhen, China
• Intern at YouTu X-Lab. Mentor: Xin Tao	06/2018-08/2018
◦ Conditional GAN-based image style transfer	
Carnegie Mellon University	Pittsburgh, PA, USA
• Visitor at The Robotics Institute. Advisor: Deva Ramanan	03/2017-02/2018
◦ Learning generative models of tissue organization with supervised GANs	
◦ Semantic segmentation for sub-cellular imagery	
Carnegie Mellon University	Pittsburgh, PA, USA
• Research Assistant at CyLab Biometrics Center. Advisor: Marios Savvides	07/2016-11/2016
◦ Contextual recurrent residual network for semantic segmentation; level-set-based cell segmentation	

PUBLICATIONS (*equal contribution)

- **L Han**, S Wen, Q Chen, Z Zhang, K Song, M Ren, R Gao, *et al.* “[Improving Tuning-Free Real Image Editing with Proximal Guidance](#)” *IEEE Winter Conference on Applications of Computer Vision (WACV)*, 2024 [[pdf](#)][[code](#)]
- K Song, **L Han**, B Liu, D Metaxas, A Elgammal. “[Diffusion Guided Domain Adaptation of Image Generators](#)” *IEEE Winter Conference on Applications of Computer Vision (WACV)*, 2024 [[pdf](#)][[webpage](#)][[code](#)]
- Q Chen, C Shui, **L Han**, M Marchand. “[On the Stability-Plasticity Dilemma in Continual Meta-Learning: Theory and Algorithm](#)” *37th Conference on Neural Information Processing Systems (NeurIPS)*, 2023 [[pdf](#)][[code](#)]

- **L Han**, Y Li, H Zhang, P Milanfar, D Metaxas, F Yang. “SVDiff: Compact Parameter Space for Diffusion Fine-Tuning” *IEEE International Conference on Computer Vision (ICCV)*, 2023 [[pdf](#)][[webpage](#)][[code](#)]
- X He, C Tan, **L Han**, B Liu, L Axel, K Li, D Metaxas. “DMCVR: Morphology-Guided Diffusion Models for 3D Cardiac Volume Reconstruction” *Medical Image Computing and Computer-Assisted Intervention (MICCAI)*, 2023
- **L Han**, S Han, S Sudalairaj, C Loh, R Dangovski, F Deng, P Agrawal, D Metaxas, L Karlinsky, T Weng, A Srivastava. “Constructive Assimilation: Boosting Contrastive Learning Performance through View Generation Strategies.” *IEEE Conference on Computer Vision and Pattern Recognition Workshop (CVPR-W)*, 2023 [[pdf](#)]
- Z Zhang, **L Han**, A Ghosh, D Metaxas, J Ren. “SINE: SINGle Image Editing with Text-to-Image Diffusion Models” *IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*, 2023 [[pdf](#)][[webpage](#)][[code](#)]
- A Stathopoulos, G Pavlakos, **L Han**, D Metaxas. “Learning Articulated Shape with Keypoint Pseudo-labels from Internet Images” *IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*, 2023 [[pdf](#)]
- R Gao, M Saar-Tsechansky, M De-Arteaga, **L Han**, M Lee, W Sun, M Lease. “Learning Complementary Policies for Human-AI Teams.” Under Review at *Management Science*, **Best Student Paper** at *Conference on Information Systems and Technology (CIST)*, 2023
- C Loh, R Dangovski, S Sudalairaj, S Han, **L Han**, L Karlinsky, M Soljagic, A Srivastava. “Mitigating Confirmation Bias in Semi-supervised Learning via Efficient Bayesian Model Averaging” *Transactions on Machine Learning Research (TMLR)*, 2023 [[pdf](#)]
- **L Han**, J Ren, H Lee, F Barbieri, S Minaee, D Metaxas, S Tulyakov. “Show Me What and Tell Me How: Video Synthesis via Multimodal Conditioning” *IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*, 2022 [[pdf](#)][[slides](#)][[webpage](#)][[code](#)]
- R Gao, M Biggs, W Sun, **L Han**. “Enhancing Counterfactual Classification Performance via Self-Training” *36th AAAI Conference on Artificial Intelligence (AAAI)*, 2022 [[pdf](#)]
- **L Han***, SH Musunuri*, MR Min, R Gao, Y Tian, D Metaxas. “AE-StyleGAN: Improved Training of Style-Based Auto-Encoders” *IEEE Winter Conference on Applications of Computer Vision (WACV)*, 2022 [[pdf](#)][[code](#)]
- **L Han**, MR Min, A Stathopoulos, Y Tian, R Gao, A Kadav, D Metaxas. “Dual Projection Generative Adversarial Networks for Conditional Image Generation” *IEEE International Conference on Computer Vision (ICCV)*, 2021 [[pdf](#)][[slides](#)][[code](#)]
- R Gao, M Saar-Tsechansky, M De-Arteaga, **L Han**, M Lee, M Lease. “Human-AI Collaboration with Bandit Feedback” *30th International Joint Conference on Artificial Intelligence (IJCAI)*, 2021 [[pdf](#)]
- J Han*, MR Min*, **L Han***, X Zhang, LE Li. “Disentangled Recurrent Wasserstein Autoencoder” *9th International Conference on Learning Representations (ICLR)*, 2021 (**Spotlight, scored among top 4%**) [[pdf](#)][[slides](#)]
- **L Han**, A Stathopoulos, T Xue, D Metaxas. “Unbiased Auxiliary Classifier GANs with MINE” *IEEE Conference on Computer Vision and Pattern Recognition Workshop (CVPR-W)*, 2020 (**Oral, DeepMind Travel Award**) [[pdf](#)]
- **L Han**, R Gao, M Kim, X Tao, B Liu, D Metaxas. “Robust Conditional GAN from Uncertainty-Aware Pairwise Comparisons” *34th AAAI Conference on Artificial Intelligence (AAAI)*, 2020 [[pdf](#)][[slides](#)]
- **L Han**, Y Zou, R Gao, L Wang, D Metaxas. “Unsupervised Domain Adaptation via Calibrating Uncertainties” *IEEE Conference on Computer Vision and Pattern Recognition Workshop (CVPR-W)*, 2019 [[pdf](#)]
- **L Han**, RF Murphy, D Ramanan. “Learning Generative Models of Tissue Organization with Supervised GANs” *IEEE Winter Conference on Applications of Computer Vision (WACV)*, 2018 [[pdf](#)]
- THN Le, CN Duong, **L Han**, K Luu, KG Quach, M Savvides. “Deep Contextual Recurrent Residual Networks for Scene Labeling” *Pattern Recognition*, 2018 [[pdf](#)]

ACADEMIC SERVICE

- **Journal Review:** IJCV, Pattern Recognition, Computer Methods and Programs in Biomedicine
- **Conference Review:** CVPR, ICCV, ECCV, WACV, NeurIPS, ICLR, ICML