Judy Hoffman

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Contents

I Earned Degrees

Degree	Year	University	Field
Ph.D.	2016	University of California, Berkeley	Electrical Engineering and Computer Science
B.S.	2010	University of California, Berkeley	Electrical Engineering and Computer Science

II Employment History

Title	Organization	Years
Assistant Professor	College of Computing Georgia Institute of Technology	08/2019–present
Visiting Research Scientist	Computer Vision Team Facebook AI Research	08/2018–07/2019
Postdoctoral Fellow	EECS Department University of California, Berkeley	06/2017–07/2018
Postdoctoral Fellow	CS Department Stanford University	08/2016–06/2017
Research Intern	Machine Perception Team Google Research	05/2012–08/2012
Research and Teaching Assistant	EECS Department University of California, Berkeley	08/2010–07/2016

III Honors and Awards

ICML Test of Time Award DeCAF Paper 2024
PAMI Young Researcher Award Distinguished early career awarded annually at CVPR to 1-2 researchers 2023
CVPR Program Chair 2023
Notable Top 5% Paper Award at ICLR For Token Merging 2023
Nominated as Effective Research Mentor Georgia Tech 2023
NSF CAREER Award 2022
Google Research Scholar Award 2022
Best Paper Award for BiSA at NeurIPS Vision Transformers Workshop 2022
Best Paper Award for Hydra Attention at ECCV Workshop on Computational aspects of DL 2022
"Thank-a-Teacher" Award, Georgia Tech, Center for Teaching and Learning 2022
Samsung AI Researcher of the Year Awarded annually to 5 researchers worldwide 2021
Diversity and Inclusion Fellow Georgia Tech 2021-2022
"Thank-a-Teacher" Award, Georgia Tech, Center for Teaching and Learning 2021
Female Leader in Computer Vision Award Awarded by NVIDIA 2020
Runner-up Best Paper Award Adversarial Robustness in the Wild Workshop at ECCV 2020
Top 100 Most Cited ML Researchers last 10 years, AiMiner 2020
"Thank-a-Teacher" Award, Georgia Tech, Center for Teaching and Learning 2020
ECCV Outstanding Reviewer Award 2020
"Thank-a-Teacher" Award, Georgia Tech, Center for Teaching and Learning 2019
NeurIPS Top 30% Reviewers 2018
Rising Stars in EECS, MIT Fall 2015
National Science Foundation Graduate Research Fellowship 2012-2015
Best Paper Award ECCV Workshop on Web-scale Vision and Social Media 2012
Rosetta Stone Ltd Grace Hopper Scholarship August 2012
Best Student Paper Award NeurIPS Domain Adaptation Workshop 2011

Rosalie M. Stern Fellowship, UC Berkeley	August 2010 - May 2011
Arthur M. Hopkin Award, UC Berkeley	May 2010
SRC Undergraduate Research Scholarship	August 2009 - May 2010
Intel Undergraduate Research Scholarship	March 2008 - August 2009
Eta Kappa Nu Member and Officer	December 2007 - Spring 2010
Rose Hills Engineering Scholarship, UC Berkeley	August 2007 - May 2008
Edward Frank Kraft Award, UC Berkeley	January 2007

IV Research, Scholarship, and Creative Activities

A Published Books, Book Chapters, and Edited Volumes

A.1 Books

A.2 Refereed Book Chapters

[1] **Judy Hoffman**, Eric Tzeng, Trevor Darrell, Kate Saenko. "Simultaneous Transfer Across Domains and Tasks" In *Domain Adaptation in Computer Vision Applications*, Springer, 173-187, 2017.

A.3 Edited Volumes

B Refereed Publications and Submitted Articles

B.1 Published and Accepted Journal Publications

[2] Simar Kareer, Vivek Vijaykumar, Prithvi Chattopadhyay, **Judy Hoffman**, Viraj Prabhu. "We're Not Using Videos Effectively: An Updated Domain Adaptive Video Segmentation Baseline", *Transactions on Machine Learning Research (TMLR)*, 2023.

[3] Viraj Prabhu, David Acuna, Andrew Liao, Rafid Mahmood, Marc T. Law, **Judy Hoffman**, Sanja Fidler, James Lucas. "Bridging the Sim2Real gap with CARE: Supervised Detection Adaptation with Conditional Alignment and Reweighting", *Transactions on Machine Learning Research (TMLR)*, 2023.

[4] Ningshan Zhang, Mehryar Mohri, **Judy Hoffman**. "Multiple-Source Adaptation Theory and Algorithms", *Annals of Mathematics and Artificial Intelligence*, 2020.

[5] Eric Tzeng, Coline Devin, **Judy Hoffman**, Chelsea Finn, Pieter Abbeel, Sergey Levine, Kate Saenko, Trevor Darrell. "Adapting deep visuomotor representations with weak pairwise constraints", Algorithmic Foundations of Robotics XII, 2020.

[6] **Judy Hoffman**, Deepak Pathak, Eric Tzeng, Jonathan Long, Sergio Guadarrama, Trevor Darrell, and Kate Saenko. "Large Scale Visual Recognition through Adaptation using Joint Representation and Multiple Instance Learning", *Journal of Machine Learning Research (JMLR), Special Issue on Multi Task Learning*, 2016.

[7] **Judy Hoffman**, Erik Rodner, Jeff Donahue, Brian Kulis, and Kate Saenko. "Asymmetric and Category Invariant Feature Transformations for Domain Adaptation", *International Journal of Computer Vision (IJCV) Special Issue on Domain Adaptation*, 2014.

B.2 Conference Publications with Proceedings (Refereed)

[8] Anisha Pal*, Julia Kruk*, Mansi Phute, Manognya Bhattaram, Diyi Yang, Duen Horng Chau, **Judy Hoffman**. "Semi-Truths: A Large-Scale Dataset of AI-Augmented Images for Evaluating Robustness of AI-Generated Image detectors" *Neural Information Processing Systems (NeurIPS)*, 2024.

[9] Sahil Khose, Anisha Pal, Aayushi Agarwal, Deepanshi, **Judy Hoffman**, Prithvijit Chattopadhyay. "SkyScenes: A Synthetic Dataset for Aerial Scene Understanding". *European Conference in Computer Vision (ECCV)*, 2024.

[10] Kristen Grauman *et. al.* (including: Fiona Ryan and **Judy Hoffman**) "Ego-Exo4D: Understanding Skilled Human Activity from First- and Third-Person Perspectives'. *IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR)*, 2024. Oral Presentation - top 1% of submissions

[11] George Stoica, Daniel Bolya, Jakob Bjorner, Taylor Hearn, **Judy Hoffman**. "ZipIt! Multitask Model Merging without Training", *International Conference on Learning Representations (ICLR)*, 2024.

[12] Prithvi Chattopadhyay, Bharat Goyal, Bogi Ecsedi, Viraj Prabhu, **Judy Hoffman**. "AUGCAL: Improving Sim2Real Adaptation by Uncertainty Calibration on Augmented Synthetic Images", *International Conference on Learning Representations (ICLR)*, 2024.

[13] Daniel Bolya, Chaitanya Ryali, **Judy Hoffman**, Christoph Feichtenhofer. "Window Attention is Bugged: How not to Interpolate Position Embeddings", *International Conference on Learning Representations (ICLR)*, 2024.

[14] Viraj Prabhu, Sriram Yenamandra, Prithvijit Chattopadhyay, **Judy Hoffman**. "LANCE: Stress-testing Visual Models by Generating Language-guided Counterfactual Images". *Neural Information Processing Systems (NeurIPS)*, 2023.

[15] Micah Goldblum, Hossein Souri, Renkun Ni, Manli Shu, Viraj Uday Prabhu, Gowthami Somepalli, Prithvijit Chattopadhyay, Adrien Bardes, Mark Ibrahim, **Judy Hoffman**, Rama Chellappa, Andrew Gordon Wilson, Tom Goldstein. "Battle of the Backbones: A Large-Scale Comparison of Pretrained Models across Computer Vision Tasks." *NeurIPS Dataset and Benchmark Track*, 2023.

[16] Prithvijit Chattopadhyay*, Kartik Sarangmath*, Vivek Vijaykumar, **Judy Hoffman**. "Proportional Amplitude Spectrum Training Augmentation for Synthetic-to-Real Domain Generalization", *IEEE/CVF International Conference in Computer Vision (ICCV)* 2023. (*Equal Contribution)

[17] Sriram Yenamandra, Pratik Ramesh, Viraj Prabhu, **Judy Hoffman**. "FACTS: First Amplify Correlations and Then Slice to Discover Bias", *IEEE/CVF International Conference in Computer Vision (ICCV)*, 2023.

[18] Aaditya Singh*, Kartik Sarangmath*, Prithvijit Chattopadhyay, **Judy Hoffman**. "Benchmarking Low-Shot Robustness to Natural Distribution Shifts", *IEEE/CVF International Conference in Computer Vision (ICCV)*, 2023. (*Equal Contribution)

[19] Haekyu Park, Seongmin Lee, Benjamin Hoover, Austin Wright, Omar Shaikh, Rahul Duggal, Nilaksh Das, **Judy Hoffman**, Duen Horng Chau. "ConceptEvo: Interpreting Concept Evolution in Deep Learning Training", *ACM International Conference on Information and Knowledge Management (CIKM)*, 2023.

[20] Chaitanya Ryali*, Yuan-Ting Hu*, Daniel Bolya*, Chen Wei, Haoqi Fan, Po-Yao Huang, Vaibhav Aggarwal, Arkabandhu Chowdhury, Omid Poursaeed, **Judy Hoffman**, Jitendra Malik, Yanghao Li, Christoph Feichtenhofer. "Hiera: A Hierarchical Vision Transformer without the Bells-and-Whistles", *International Conference on Machine Learning (ICML)*, 2023. (Oral Presentation)

[21] Daniel Bolya, Cheng-Yang Fu, Xiaoliang Dai, Peizhao Zhang, Christoph Fleichtenhofer, **Judy Hoffman**. "Token Merging: Your ViT But Faster", *International Conference on Learning Representations (ICLR)*, 2023. **(Notable Top 5%)**

[22] Arun Reddy, Ketul Shah, William Paul, Rohita Mocharla, **Judy Hoffman**, Kapil Katyal, Dinesh Manocha, Celso de Melo, Rama Chellappa. "Synthetic-to-Real Domain Adaptation for Action Recognition: A Dataset and Baseline Performances", *International Conference on Robotics and Automation (ICRA)*, 2023.

[23] Kapil Katyal, Rama R. Chellappa, Ketul Shah, Arun Reddy, **Judy Hoffman**, William Paul, Rohita Mocharla, David A. Handelman, Celso De Melo. "Leveraging synthetic data for robust gesture recognition", *SPIE*, 2023.

[24] Chia-Wen Kuo, Chih-Yao Ma, **Judy Hoffman**, Zsolt Kira. "Structure-Encoding Auxiliary Tasks for Improved Visual Representation in Vision-and-Language Navigation", *IEEE/CVF Winter Conference on Applications of Computer Vision (WACV)*, 2023.

[25] Viraj Uday Prabhu*, Sriram Yenamandra*, Aaditya Singh, **Judy Hoffman**. "Adapting Self-Supervised Vision Transformers by Probing Attention-Conditioned Masking Consistency", *Neural Information Processing Systems (NeurIPS)*, 2022. *(*Equal Contribution)*

[26] Arjun Majumdar, Gunjan Aggarwal, Bhavika Suresh Devnani, **Judy Hoffman**, Dhruv Batra. "ZSON: Zero-Shot Object-Goal Navigation using Multimodal Goal Embeddings", *Neural Information Processing Systems (NeurIPS)*, 2022.

[27] Seongmin Lee, Zijie J. Wang, **Judy Hoffman**, Duen Horng (Polo) Chau. "VISCUIT: Visual Auditor for Bias in CNN Image Classifier". *Computer Vision and Pattern Recognition (CVPR) Demo Track*, 2022

[28] Sruthi Sudhakar, Viraj Prabhu, Arvind Krishnakumar, **Judy Hoffman**. "Mitigating Bias in Visual Transformers via Targeted Alignment", *British Machine Vision Conference (BMVC)*, 2021.

[29] Arvind Krishnakumar, Viraj Prabhu, Sruthi Sudhakar, **Judy Hoffman**. "UDIS: Unsupervised Discovery of Bias in Deep Visual Recognition Models", *British Machine Vision Conference (BMVC)*, 2021.

[30] Daniel Bolya, Rohit Mittapalli, **Judy Hoffman**. "Scalable Diverse Model Selection for Accessible Transfer Learning." *Neural Information Processing Systems (NeurIPS)*, 2021.

[31] Viraj Prabhu, Shivam Khare, Deeksha Karthik, **Judy Hoffman**. "Selective Entropy Optimization via Committee Consistency for Unsupervised Domain Adaptation." *International Conference in Computer Vision (ICCV)*, 2021.

[32] Prithvijit Chattopadhyay, **Judy Hoffman**, Roozbeh Mottaghi, Ani Kembhavi. "RobustNav: Towards Benchmarking Robustness in Embodied Navigation." *International Conference in Computer Vision (ICCV)*, 2021. **(Oral Presentation)**

[33] Viraj Prabhu, Arjun Chandrasekaran, Kate Saenko, **Judy Hoffman**. "Active Domain Adaptation via Clustering Uncertainty-weighted Embeddings." *International Conference in Computer Vision (ICCV)*, 2021.

[34] Baifeng Shi, Qi Dai, **Judy Hoffman**, Kate Saenko, Trevor Darrell, Huijuan Xu. "Temporal Action Detection with Multi-level Supervision." *International Conference in Computer Vision (ICCV)*, 2021.

[35] Or Litany, Ari Morcos, Srinath Sridhar, Leonidas Guibas, **Judy Hoffman**. "Representation Learning Through Latent Canonicalization." *IEEE Winter Conference on Applications in Computer Vision (WACV)*, 2021.

[36] Baifeng Shi, **Judy Hoffman**, Kate Saenko, Trevor Darrell, Huijuan Xu. "Auxiliary Task Reweighting for Minimum-data Learning". *Neural Information Processing Systems (NeurIPS)*, 2020.

[37] Samyak Datta, Oleksandr Maksymets, **Judy Hoffman**, Stefan Lee, Dhruv Batra, Devi Parikh. "Integrating Egocentric Localization for More Realistic Point-Goal Navigation Agents", *Conference on Robot Learning (CoRL)*, 2020.

[38] Daniel Bolya, Sean Foley, James Hays, **Judy Hoffman**. "TIDE: A General Toolbox for Identifying Object Detection Errors", *European Conference in Computer Vision (ECCV)*, 2020.**(Spotlight Presentation)**

[39] Prithvijit Chattopadhyay, Yogesh Balaji, **Judy Hoffman**. "Learning to Balance Specificity and Invariance for In and Out of Domain Generalization", *European Conference in Computer Vision (ECCV)*, 2020.

[40] Harish Haresamudram, Apoorva Beedu, Varun Agrawal, Patrick L Grady, Irfan Essa, **Judy Hoffman**, Thomas Ploetz. "Masked Reconstruction based Self-Supervision for Human Activity Recognition", *ACM International Symposium on Wearable Computers (ISWC)*, 2020.

[41] **Judy Hoffman**, Daniel A. Roberts, Sho Yaida. "Robust Learning with Jacobian Regularization" *Conference on the Mathematical Theory of Deep Learning (DeepMath)*, 2019.

[42] Daniel Gordon, Abhishek Kadian, Devi Parikh, **Judy Hoffman**, Dhruv Batra. "SplitNet: Sim2Sim and Task2Task Transfer for Embodied Visual Navigation", *IEEE/CVF International Conference in Computer Vision (ICCV)*, 2019.

[43] **Judy Hoffman**, Mehryar Mohri, Ningshan Zhang. "Algorithms and Theory for Multiple-Source Adaptation", *Neural Information Processing Symposium (NeurIPS)*, 2018.

[44] **Judy Hoffman**, Eric Tzeng, Taesung Park, Jun-Yan Zhu, Phillip Isola, Kate Saenko, Alyosha Efros, Trevor Darrell. "CyCADA: Cycle Consistent Adversarial Domain Adpatation", *International Conference in Machine Learning (ICML)*, 2018.

[45] Liyue Shen, Serena Yeung, **Judy Hoffman**, Greg Mori, Li Fei-Fei. "Scaling Human-Object Interaction Recognition through Zero-Shot Learning", *IEEE Winter Conference on Applications in Computer Vision (WACV)*, 2018.

[46] Zelun Luo, Yuliang Zou, **Judy Hoffman**, Li Fei-Fei. "Label Efficient Learning of Transferable Representations across Domains and Tasks", *Neural Information Processing Systems (NIPS)*, 2017.

[47] Timnit Gebru, **Judy Hoffman**, Li Fei-Fei, "Fine-grained Recognition in the Wild: A Multi-Task Domain Adaptation Approach ", *IEEE/CVF International Conference in Computer Vision (ICCV)*, 2017.

[48] Justin Johnson, Bharath Hariharan, Laurens van der Maaten, **Judy Hoffman**, Li Fei-Fei, C. Lawrence Zitnick, Ross Girshick. "Inferring and Executing Programs for Visual Reasoning", *IEEE/CVF International Conference in Computer Vision (ICCV)*, 2017. **(Oral Presentation)**

[49] Eric Tzeng, **Judy Hoffman**, Kate Saenko, Trevor Darrell. "Adversarial Discriminative Domain Adaptation", *IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR), Hawaii, USA, 2017.*

[50] **Judy Hoffman**, Saurabh Gupta, Trevor Darrell. "Learning with Side Information through Modality Hallucination", *IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR)*, Las Vegas, USA, 2016. **(Spotlight Presentation)**

[51] Saurabh Gupta, **Judy Hoffman**, Jitendra Malik. "Cross Modal Distillation for Supervision Transfer", *IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR)*, Las Vegas, USA, 2016.

[52] Xingchao Peng, **Judy Hoffman**, Stella Yu, Kate Saenko. "Fine-to-coarse Knowledge Transfer For Low-Res Image Classification". *IEEE International Conference on Image Processing*, 2016.

[53] **Judy Hoffman**, Saurabh Gupta, Jian Leong, Sergio Guadarrama, Trevor Darrell. "Cross-Modal Adaptation for RGB-D Detection", *IEEE International Conference on Robotics and Automation (ICRA)*, Stockholm, Sweden, 2016.

[54] Eric Tzeng*, **Judy Hoffman***, Trevor Darrell, Kate Saenko. "Simultaneous Deep Transfer Across Domains and Tasks", *IEEE International Conference on Computer Vision (ICCV)*, Santiago, Chile, 2015. **Equal Contribution*

[55] Damian Mowroca, Marcus Rohrbach, **Judy Hoffman**, Ronghang Hu, Kate Saenko, Trevor Darrell. "Spatial Semantic Regularisation for Large Scale Object Detection", *IEEE International Conference on Computer Vision (ICCV)*, Santiago, Chile, 2015.

[56] **Judy Hoffman**, Deepak Pathak, Trevor Darrell, Kate Saenko. "Detector Discovery in the Wild: Joint Multiple Instance and Representation Learning," *IEEE Computer Vision and Pattern Recognition (CVPR)*, Boston, USA, 2015.

[57] **Judy Hoffman**, Sergio Guadarrama, Eric Tzeng, Ronghang Hu, Jeff Donahue, Ross Girshick, Trevor Darrell, and Kate Saenko. "LSDA: Large Scale Detection through Adaptation," *In Proc. Neural Information Processing (NIPS)*, Montreal, Canada, 2014.

[58] **Judy Hoffman**, Trevor Darrell, and Kate Saenko. "Continuous Manifold Based Adaptation for Evolving Visual Domains", *IEEE Computer Vision and Pattern Recognition (CVPR)*, Ohio, USA, 2014.

[59] Daniel Goehring, **Judy Hoffman**, Erik Rodner, Kate Saenko and Trevor Darrell. "Interactive Adaptation of Real-Time Object Detectors", *IEEE International Conference on Robotics and Automation (ICRA)*, Hong Kong, China, 2014.

[60] Jeff Donahue, Yangqing Jia, Oriol Vinyals, **Judy Hoffman**, Ning Zhang, Eric Tzeng, Trevor Darrell. "DeCAF: A Deep Activation Feature for Generic Visual Recognition", *In Proc. International Conference in Machine Learning (ICML)*, Beijing, China, 2014.

[61] **Judy Hoffman**, Erik Rodner, Jeff Donahue, Kate Saenko, Trevor Darrell. "Efficient Learning of Domain-invariant Image Representations", *In Proc. International Conference on Representation Learning (ICLR)*, Scottsdale, Arizona, 2013. **(Oral Presentation)**

[62] Jeff Donahue, **Judy Hoffman**, Erik Rodner, Kate Saenko, Trevor Darrell. "Semi-Supervised Domain Adaptation with Instance Constraints", *IEEE Computer Vision and Pattern Recognition (CVPR)*, Portland, Oregon, 2013.

[63] **Judy Hoffman**, Brian Kulis, Trevor Darrell, Kate Saenko. "Discovering Latent Domains for Multisource Domain Adaptation", *In Proc. European Conference in Computer Vision (ECCV)*, Florence, Italy, 2012.

[64] Leonard Jaillet, **Judy Hoffman**, Jur van den Berg, Pieter Abbeel, Josep M. Porta, Ken Goldberg. "EG-RRT: Environment-Guided Random Trees for Kinodynamic Motion Planning with Uncertainty and Obstacles." *In Proc. IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)*, San Francisco, CA, 2011.

B.3 Other Refereed Material

[65] Sruthi Sudhakar, Viraj Uday Prabhu, Olga Russakovsky, **Judy Hoffman**. "ICON2: Reliably Benchmarking Predictive Inequity in Object Detection", *CVPR Workshop on Secure and Safe Autonomous Driving (SSAD)*, 2023.

[66] Sachit Kuhar, Alexey Tumanov, **Judy Hoffman**. "Signed Binary Weight Networks", *3rd On-Device Intelligence Workshop at MLSys*, 2023

[67] Daniel Bolya, **Judy Hoffman**. "Token Merging for Fast Stable Diffusion" *CVPR Workshop on Efficient Deep Learning for Computer Vision*, 2023 (Oral Presentation)

[68] George Stoica, Taylor Hearn, Bhavika Suresh Devnani, **Judy Hoffman**. "Bi-Directional Self-Attention for Vision Transformers", *NeurIPS Vision Transformers: Theory and Applications Workshop*, 2022. **(Best Paper Award)**

[69] Daniel Bolya, Cheng-Yang Fu, Xiaoliang Dai, Peizhao Zhang, **Judy Hoffman**. "Hydra Attention: Efficient Attention with Many Heads", *International Workshop on Computational Aspects of Deep Learning at ECCV*, 2022. **(Best Paper Award)**

[70] Viraj Prabhu*, Shivam Khare*, Deeksha Kartik, **Judy Hoffman**. "AUGCO: Augmentation Consistency-guided Self-training for Source-free Domain Adaptive Semantic Segmentation", *Workshop on Computer Vision in the Wild, ECCV*, 2022.

[71] Viraj Prabhu, Ramprasaath R. Selvaraju, **Judy Hoffman**, Nikhil Naik. "Can domain adaptation make object recognition work for everyone?". *Computer Vision and Pattern Recognition (CVPR) L3D Workshop*, 2022

[72] Fu Lin, Rohit Mittapali, Prithvijit Chattopadhyay, Daniel Bolya, **Judy Hoffman**. "Likelihood Landscapes: A Unifying Principle Behind Many Adversarial Defenses", Adversarial Robustness in the Real World (AROW), ECCV, 2020. **(Best paper runner up)**

[73] Benjamin Wilson, **Judy Hoffman**, Jamie Morgenstern. "Predictive Inequity in Object Detection", *Workshop on Fairness Accountability Transparency and Ethics at CVPR*, 2019.

[74] Andreea Bobu, Eric Tzeng, **Judy Hoffman**, Trevor Darrell. "Adapting to Continuously Shifting Domains", *International Conference on Learning Representations (ICLR) Workshop Track*, 2018.

[75] Evan Shelhamer*, Kate Rakelly*, **Judy Hoffman***, Trevor Darrell. "Clockwork Convnets for Video Semantic Segmentation." *Workshop on Video Segmentation hosted at ECCV*, 2016.

[76] Brian Chu, Vashisht Madhavan, Oscar Beijbom, **Judy Hoffman**, Trevor Darrell. "Best Practices for Fine-tuning Visual Classifiers to New Domains." *TASK-CV Workshop hosted at ECCV*, 2016.

[77] Oscar Beijbom, **Judy Hoffman**, Evan Yao, Trevor Darrell, Alberto Rodriguez - Ramirez, Manuel Gonzlez - Rivero, Ove Hoegh - Guldberg. "Quantification in-the-wild: data-sets and baselines." *NIPS Workshop Transfer and Multi-task Learning: Trends and New Perspectives*, 2015.

[78] **Judy Hoffman**, Eric Tzeng, Jeff Donahue, Yanqing Jia, Kate Saenko, and Trevor Darrell. "One-Shot Adaptation of Supervised Deep Convolutional Models", *Presented at International Conference in Learning and Representation (ICLR)*, Banff, Canada, 2014.

[79] Erik Rodner, **Judy Hoffman**, Jeff Donahue, Trevor Darrell, Kate Saenko. "Scalable Transform-based Domain ADaptation". *VisDA: International Workshop on Visual Domain Adaptation and Dataset Bias (hosted at ICCV)*, Sydney, Australia, 2013.

[80] Glen Hartmann, Matthias Grundmann, **Judy Hoffman**, David Tsai, Vivek Kwatra, Omid Madani, Sudheendra Vijayanarasimhan, Irfan Essa, James Rehg, Rahul Sukthankar. "Weakly Supervised Learning of Object Segmentations from Web-Scale Video." *In Proc. European Conference in Computer Vision (ECCV) Workshop on Web-scale Vision and Social Media*, Florence, Italy, 2012. **(Best Paper Award)**

[81] **Judy Hoffman**, Kate Saenko, Brian Kulis, Trevor Darrell. "Domain Adaptation with Multiple Latent Domains." *Neural Information Processing Symposium (NIPS) Domain Adaptation Workshop Talk*, Granada Spain, 2011. **(Best Student Paper Award)**

C Other Publications and Creative Products

C.1 Software Release

- LANCE understanding model failures, *(release 2023)*
  Lead Developer: Viraj Prabhu
- ZipIt! for Model Merging, *(release 2023)*
  Lead Developers: George Stoica, Daniel Bolya
  250+ Stars on Github
- Token Merging for Fast Stable Diffusion *(release 2023)*
  Lead Developer: Daniel Bolya
  1200+ stars on Github
- Token Merging *(release 2022)*
  Lead Developer: Daniel Bolya, Collaborators: Cheng-Yang Fu, Xiaoliang Dai, Peizhao Zhang, Christoph Feichtenhofer, Judy Hoffman
  800+ stars on Github
- PACMAC: Adapting Self-Supervised Vision Transformers by Probing Attention Conditioned Masking Consistency *(release: 2022)*
  Lead Developers: Viraj Prabhu and Sriram Yenamandra, PI: Judy Hoffman
- VisCUIT: Visual Auditor for Bias in CNN Image Classifier, *(release 2022)*
  Lead Developer: Seongmin Lee, PIs: Judy Hoffman, Duen Horng (Polo) Chau
- SENTRY: Selective Entropy Optimization via Committee Consistency for Unsupervised Domain Adaptation *(release 2021)*
  Lead Developer: Viraj Prabhu, PI: Judy Hoffman
- TIDE: A General Toolbox for Identifying Object Detection Errors. *(release 2020)*
  Lead Developer: Daniel Bolya, PI: Judy Hoffman
  More than 650 stars on Github and being officially integrated into the LVIS Detection and Segmentation Challenge

- CyCADA: Cycle Consistent Adversarial Domain Adaptation.
  Lead Developer: Judy Hoffman, PI: Trevor Darrell
  More than 500 stars on GitHub

C.2 Publications (Not Refereed) and Preprints

[1] Yogesh Balaji, Tom Goldstein, Judy Hoffman. "Instance adaptive adversarial training: Improved accuracy tradeoffs in neural nets." *https://arxiv.org/abs/1910.08051*, 2020.

[2] Eric Wijmans, Julian Straub, Dhruv Batra, Irfan Essa, Judy Hoffman, Ari Morcos. "Analyzing Visual Representations in Embodied Navigation Tasks", *arXiv preprint arXiv:2003.05993*, 2020.

[3] Recent Trends in Machine Learning, Part 3." National Academies of Sciences, Engineering, and Medicine. 2019. Robust Machine Learning Algorithms and Systems for Detection and Mitigation of Adversarial Attacks and Anomalies: Proceedings of a Workshop, Chapter 8. Washington, DC: The National Academies Press. doi: 10.17226/25534.

[4] Judy Hoffman, Dequan Wang, Fisher Yu, Trevor Darrell. "FCNs in the Wild: Pixel-level Adversarial and Constraint-based Adaptation." *http://arxiv.org/abs/1612.02649*, 2017.

D Presentations

D.1 Invited Keynote Presentations

1. ECCV 2024 Workshop on Green Models: Efficient Use of Foundation Models for Vision, Sep 2024
2. ECCV 2024 Workshop on Unlocking Data Efficiency: Efficient Use of Foundation Models for Vision, Sep 2024
3. CoRL 2023 Workshop on Out-of-Distribution Generalization: From Visual Generalization to Robotics Generalization, Nov 2023
4. ICCV 2023 Workshop on GeoNet: Unsupervised Adaptation across Geographies: Discovering and Interpreting Model Bias, Oct 2023
5. CVPR 2023 11th Women in Computer Vision (WiCV) workshop: Efficient and Reliable Vision Models, May 2023
6. CVPR 2023 Workshop on Synthetic Data for Autonomous Systems (SDAS): Reliable Vision for a Changing World, May 2023
7. CVPR 2023 Workshop on 6th Efficient Deep Learning for Computer Vision: Increasing Efficiency by Reducing Redundancy, May 2023
8. CVPR 2023 The 3rd Workshop of Adversarial Machine Learning on Computer Vision: Art of Robustness: Reliable Vision for a Changing World, May 2023
9. IRIM Robotics Symposium
   Panelist on Safety and Hype in AI, Apr 2023
10. ECCV Workshop on Robust Vision, Talk: Forms of Robustness, Sep 2022
11. Responsible Computer Vision Tutorial on How do models fail and what can we do about it?, June 2022
12. Workshop at CVPR on The Art of Robustness: Devil and Angel in Adversarial Machine Learning Invited Talk: Forms of Robustness, June 2022
13. Visual Perception and Learning in an Open World at CVPR Invited Talk: Seeing in a Diverse World, June 2022

14. ICLR Workshop Socially Responsible ML Invited Talk: The Impact of Dataset Bias, April 2022
15. Moving Beyond Bespoke Models, Deep Multi-task Learning Workshop at ICCV, 2021.
16. Lessons from Domain Adaptation for Robust Video Understanding, Robust Video Scene Understanding Workshop at CVPR, 2021
17. Achieving and Understanding Adversarial Robustness, Adversarial Robustness in the Wild Workshop at ECCV, 2020
18. Analyzing Bias in Computer Vision Systems, Fair Face Recognition Workshop at ECCV, 2020
19. Making perception robust to data and model bias, ARO Sponsored Workshop on Assured Autonomy, 2020
20. Generalizing and Actively Adapting to New Domains, Learning with Limited Labels Workshop at CVPR, 2020
21. Making vision robust to data and model bias, UG2 Workshop at CVPR, 2020
22. Maximizing Transferability when Learning in Simulation, Embodied AI Workshop at CVPR, 2020
23. Generalizing Models to a Diverse World, Vision for All Seasons Workshop at CVPR, 2019
24. Adversarial Domain Adaptation and Robustness to Adversaries, Women in Computer Vision Workshop at CVPR, 2019
25. Adversarial Domain Adaptation, MIT GANocracy: Workshop on Theory, Practice, and Artistry of Deep Generative Modeling, 2019
26. Domain Adaptation, National Academies of Science Workshop on Robust Machine Learning Algorithms and Systems: Detection & Mitigation of Adversarial Attacks and Anomalies, 2018
27. Domain Adaptation and Multisource Generalization, Integrations of Deep Learning and Theories Workshop at NeurIPS, 2018
28. Adversarial Domain Adaptation, Tutorial on GANs at CVPR, 2018
29. Making your data count: sharing information across domains and tasks, Vision with Biased or Scarce Data Workshop at CVPR, 2018
30. Making our Models Robust to Changing Visual Environments, Robust Vision Workshop at CVPR, 2018
31. A General Framework for Domain Adversarial Learning, ReWork Deep Learning Summit San Francisco, 2017
32. Adapting Deep Networks Across Domains, Modalities, and Tasks. ICCV Task-CV Workshop, 2015.

D.2 Invited Seminars

1. Boston University CISE Seminar: Reliable Vision for a Changing World, Mar 2023
2. Google Machine Perception Seminar: Reliable Vision for a Changing World, Jan 2023
3. MIT Vision Seminar, Talk: Reliable and Accessible Visual Recognition, April 2022
4. University of Maryland, College Park, Reliable and Accessible Visual Recognition, April 2022
5. Selective Domain Adaptation, Carnegie Mellon University, 2021
6. Selective Domain Adaptation, University of Illinois Urbana-Champagne, 2021

7. Understanding and Mitigating Bias in Vision Systems, Georgia Tech IRIM Seminar, 2021
8. The Perils of Learning from Biased Data, UC Berkeley ITS Seminar, 2021
9. Understanding and Mitigating Bias in Visual Recognition, Google Research, 2021
10. Understanding and Mitigating Bias in Visual Recognition, TUM AI Lecture Series, 2021
11. Understanding and Mitigating Bias in Visual Recognition, NCAT, 2020
12. Understanding and Mitigating Bias in Visual Recognition, USC ISI, 2020
13. Understanding and Mitigating Bias in Visual Recognition, John Hopkins University, 2020
14. How Dataset Bias Leads to Learned Model Failures, Inaugural Speaker of Federica Darema Lecture Series at IIT Chicago, 2019
15. Analyzing Fairness in Computer Vision Systems, ML at GT Seminar Series, 2019
16. Learning with Limited Labeled Data, Invited Seminar at Georgia Tech, 2019
17. Adaptive Adversarial Learning for a Diverse Visual World, Facebook AI Research, 2018
18. Adaptive Adversarial Learning for a Diverse Visual World, University of Maryland College Park, 2018
19. Adaptive Adversarial Learning for a Diverse Visual World, University of Virginia, 2018
20. Adaptive Adversarial Learning for a Diverse Visual World, Carnegie Mellon University, 2018
21. Adaptive Adversarial Learning for a Diverse Visual World, Georgia Institute of Technology, 2018
22. Adaptive Adversarial Learning for a Diverse Visual World, University of Wisconsin Madison, 2018
23. Adaptive Adversarial Learning for a Diverse Visual World, Massachusetts Institute of Technology, 2018
24. Adaptive Adversarial Learning for a Diverse Visual World, New York University, 2018
25. Adaptive Adversarial Learning for a Diverse Visual World, UC Santa Barbara, 2018
26. Adaptive Adversarial Learning for a Diverse Visual World, University of Chicago, 2018
27. Adaptive Adversarial Learning for a Diverse Visual World, University of Massachusetts Amherst, 2018
28. Domain adaptation: From simulation data to real world training data, Berkeley Deep Drive Symposium, 2017
29. A General Framework for Domain Adversarial Learning, Qualcomm Research, 2017
30. A General Framework for Domain Adversarial Learning, OpenAI, 2017
31. A General Framework for Domain Adversarial Learning, Berkeley Artificial Intelligence Research (BAIR) Seminar, 2017
32. Adapting Deep Networks Across Domains, Modalities, and Tasks, Stanford Vision Seminar, 2016.
33. Continuous Adaptation with Limited Target Labeled Data, IST Austria Symposium on Computer Vision and Machine Learning, 2015

D.3 Scholarly Presentation

1. **Plenary Session at CVPR 2023 on Vision, Language, and Creativity**, Panel Moderator May 2023
2. Dagsthul Seminar on Developmental Machine Learning: From Human Learning to Machines and Back Talk: The Impact of Dataset Bias on Model Learning, Sep 2022
3. Cisco Responsible Computer Vision Workshop Invited Talk: The Impact of Dataset Bias, Aug 2022
4. Panel Discussion at Workshop on Distribution Shifts, NeurIPS 2021
5. Robust Vision for Embodied Navigation, Georgia Tech Google Robotics Workshop, 2021
6. Detecting Reliable Instances for Learning, Adversarial Machine Learning Tutorial, CVPR 2021
7. Interviewer for Fireside Chat with Kate Crawford at Responsible Computer Vision Workshop, CVPR 2021
8. Domain Adaptation Tutorial at ICCV Tutorial on Learning with Limited Labels, 2019
9. Analyzing Fairness in Computer Vision Systems, ML at Georgia Tech 2019
10. Adapting and Generalizing Across Domains, CVPR Area Chairs Meeting, 2019
11. Adaptive Deep Learning, Berkeley Artificial Intelligence (BAIR) Retreat, 2018
12. Deep Domain Adaptation, Sony Japan, 2016
13. Deep Domain Adaptation, Yahoo Japan, 2016
14. Cross-modal Domain Adaptation at Machine Learning with Interdependent and Non-identically Distributed Data (Dagstuhl Seminar 15152), 2015
15. Transfer of Deep Vision (and Language) models for "TOT", DARPA PI Meeting, 2014
16. Category Invariant Cross Modality Transfer, Daghstuhl seminar on ML with Non-identically Distributed Data, 2015

D.4 Submitted Conference Presentations

1. Cycle Consistent Adversarial Domain Adaptation, ICML, 2018
2. Adapting Deep Models for Visual Recognition in the Wild, MIT Rising Stars in EECS Workshop, 2015
3. Adapting Deep Networks to Real World Problems, Amazon Computer Vision PhD Symposium, 2015
4. Simultaneous Transfer Across Domains and Tasks, Bay Area Robotics Symposium, 2015
5. Large scale recognition through adaptation, Berkeley-Stanford Vision and Learning Meeting, 2015
6. LSDA: Large Scale Detection through Adaptation, BayLearn, 2014
7. Efficient Learning of Domain Invariant Image Representations, International Conference on Learning Representations (ICLR), 2013
8. Discovering Latent Domains for Multisource Domain Adaptation, Women in Machine Learning co-located at NeurIPS, 2012.

E Grants and Contracts

E.1 As Principal Investigator

CAREER: Vision Systems for an Evolving World
National Science Foundation
Total Dollar Amount: $589,854
Role: PI
Collaborators: N/A
Period of Contract: 9/2022 - 8/2027

Reliable Visual Adaptation through Selective Learning
Google
Total Dollar Amount: $60,000
Role: PI
Collaborators: N/A
Period of Contract: 5/2022 - 5/2023

RI: Medium: Democratizing Visual AI: Enhancing Efficiency and Usability of Large Vision Models for Fostering Under-Resourced Access
Sponsor: National Science Foundation
Total Dollar Amount: $1,200,000
Candidate's Share of GT: $600,000
Role: PI
Collaborators: Polo Chau (co-PI), Celine Lin (co-PI)
Dates: 8/2024 – 7/2028

E.2 As Co-Principal Investigator

TANR2L: Transfer of Autonomy using Neurosymbolic Representation-based Reinforcement Learning
Sponsor: DARPA
Total Dollar Amount: $4,227,717
Candidate's Share of GT: $618,000
Collaborators: Vishal Patel (PI), Rama Chellappa, Wei-Chu Ma, Pavan Turaga
Role: GT PI, co-PI
Dates: 8/2024 – 7/2027

Adaptation and Generalization of Synthetic Data for Object/Action Detection and Recognition
Sponsor: Army Research Lab (ARL)
Total Dollar Amount: $1,500,000
Total GT Dollar Amount: $382,331
Role: co-PI (GT Lead PI)
Collaborators GT: N/A
Collaborators Outside GT: Rama Chellapa (PI), Carlos Castillo (co-PI), Vishal Patel (co-PI)
Period of Contract: 9/2021 - 8/2024
Candidate's Share of GT: 100% ($382,331)

Secure and Safe Assured Autonomy
Sponsor: NASA
Total Dollar Amount: $7,938,730
Total GT Dollar Amount: $2,054,000
Role: co-PI

Collaborators GT: Mark Costello (GT lead PI), Judy Hoffman (co-PI), Sam Coogan (co-PI), Kyriakos Vamvoudakis (co-PI)
Collaborators Outside GT: Abdollah Homaifar (PI), Dan DeLaurentis (co-PI), Ali Karimoddini (co-PI), Inseok Hwang (co-PI), Dengfeng Sun (co-PI), John Kelly (co-PI), James Goppert (co-PI), Yahya Kamalipour (co-PI), Shaoshuai Mou (co-PI), Nabil Mahmoud (co-PI), Ioannis Raptis (co-PI), Allison Sullivan (co-PI), James Paduano (co-PI), Bruce Holmes (co-PI), Damon Jenkins (co-PI), Neta Ezer (co-PI).
Period of Contract: 8/2020 - 7/2024
Candidate's Share of GT: $\sim$25% ($513K)

E.3 As Senior Personnel or Contributor

E.4 Projects Completed (Last Two Years)

Identifying and Interpreting Correlation Bias
Sponsor: Cisco Inc.
Total Dollar Amount: $158,716
Role: PI
Period of Contract: 10/2022 – 12/2023

Interactive and Scalable Auditing of AI Biases with Interpretable Mitigation
Research contract with Cisco Inc.
Total Dollar Amount: $307,514
Role: PI
Collaborators: Judy Hoffman (PI), Polo Chau (co-PI)
Period of Contract: 12/2020 - 8/2022
Candidate's Share: 50% ($154K)

LEARN: Label-Efficient Active Resilient Networks
DARPA
Total Dollar Amount: $5,700,000
Total GT Dollar Amount: $300,000
Role: co-PI (GT Lead PI)
Collaborators GT: NA
Collaborators Outside GT: Trevor Darrell (PI), Dan Klein (co-PI), Alexei Efros (co-PI), Sergey Levine (co-PI), Kate Saenko (co-PI), Derry Wijaya (co-PI), Eran Swear (co-PI), Anthony Hoogs (co-PI), Fei Sha (co-PI)
Period of Contract: 5/2019 - 5/2023
Candidate's Share of GT: 100% ($300K)

F Other Scholarly and Creative Accomplishments

NA

G Societal and Policy Impacts

- Speaker at National Institute of Science and Technology on Measuring AI Systems, 2022
- Expert Speaker on Bias in Visual Recognition Systems, US Embassy Paris and ANITI, 2020
- Army Science Planning and Strategy Meeting on Synthetic Environments for AI & ML in Multi-Domain Operations, 2020
- Speaker and contributor at ARO/ARL Workshop on Synthetic Data, 2020

- Speaker and contributor at ARO Workshop on Trusted Autonomy, 2020
- Roundtable and Planning Meeting on Trusted AI, Sandia University Research Association, 2020

H Other Professional Activities

- Interview for AI Am I Georgia Tech Campaign, 2023
- Interview with Humans of AI, Stories not Stats, 2021
- Interview with CVPR Daily Magazine, 2021

V Education

A Courses Taught

Semester/Year	Course	# Students	Comments
Spring 2024	CS 6476 Computer Vision	250	
Fall 2023	CS 7647 Machine Learning with Limited Supervision	50	
Spring 2023	CS 4476 Introduction to Computer Vision	185	
Fall 2022	CS 8803LS Machine Learning with Limited Supervision	50	
Spring 2022	CS 4476 Introduction to Computer Vision	185	
Fall 2021	CS 8803LS Machine Learning with Limited Supervision	50	COVID-19
Spring 2021	CS 4476 Introduction to Computer Vision	112	COVID-19 online
Spring 2020	CS 4476/6476 Introduction to Computer Vision	250	COVID-19
Fall 2019	CS 8803LS Machine Learning with Limited Supervision	50	

B Individual Student Guidance

B.1 Ph.D. Students

B.1.a. Ph.D. Students Graduated

1. **Prithvijit Chattopadhyay**: Fall 2019 - Summer 2024
   Awarded *Rising Star Doctoral Research Award, CoC*, 2020
   Selected for ICCV 2023 Doctoral Consortium
   Passed Qualifying Exam Spring 2021
   Proposal Passed Fall 2023
   Defense Passed Summer 2024
   Next: Research Scientist, NVIDIA AI Research
2. **Daniel Bolya**: Fall 2019 - Spring 2024
   Awarded NSF Graduate research fellowship
   Awarded CoC GT Outstanding Graduate Research Assistant, 2024
   Passed Qualifying Exam Spring 2021
   Proposal Passed Fall 2023
   Defense Passed April 12, 2024
   Next: Research Scientist, FAIR, Meta
3. **Viraj Prabhu**: Fall 2019 - Fall 2023
   Passed Qualifying Exam Fall 2020
   Proposal Passed Fall 2022
   Defense Passed Fall 2023
   Next: Research Scientist, Salesforce AI

B.1.b. Ph.D. Students Supervised

4. **George Stoica**: Fall 2021 - Present
   Awarded NSF Graduate research Fellowship
   Qualifying Exam Passed Fall 2023
5. **Simar Kareer**: Fall 2022 - Present
   Qualifying Exam Passed Spring 2024
6. **Pratik Ramesh**: Spring 2023 - Present
   Awarded Herbert P. Haley Fellowship Fall 2023
7. **Fiona Ryan**: Spring 2023 - Present
   Co-advised with Jim Rehg
   Qualifying Exam Passed Spring 2023
   Awarded NSF Graduate Research Fellowship
8. **Anh Ngoc Thai**: Spring 2023 - Present
   Co-advised with Jim Rehg
   Proposal Passed Fall 2023
9. **Sahil Khose**: Fall 2024 - Present
10. **Bhavika Devnani**: Fall 2024 - Present
11. **Mengqi Zhang**: Fall 2024 - Present

B.2 M.S. Projects and Special Problems Students Supervised

B.2.a. Graduated M.S. Students (Thesis/Project Option)

1. **Vivek Vijaykumar**: Spring 2024
   Graduated Spring 2024: Next Databricks
2. **Anisha Pal**: Spring 2023 - Spring 2024
   Graduated Spring 2024
3. **Sahil Khose**: Spring 2023 - Spring 2024
   Graduated Spring 2024: Next GT PhD
4. **Sriram Yenamandra**: Spring 2022 - Fall 2023
   Graduated Fall 2023
   Awarded GT Outstanding MS Research Award, 2024
   Co-advised Dhruv Batra
5. **Taylor Hearn**: Spring 2022 - Spring 2023
   Graduated Spring 2023
6. **Aaditya Singh**: Spring 2022 - Spring 2023
   Graduated Spring 2023: Next AWS AI
7. **Deepanshi Deepanshi**: Fall 2021 - Spring 2023
   Graduated Spring 2023: Next Emory
8. **Aayushi Agarwal**: Fall 2021 - Spring 2023
   Graduated Spring 2023: Next Rivian
9. **Bhavika Devnani**: Spring 2021 - Fall 2022
   Graduated Fall 2022: Next Apple AI Engineer
10. **Sean Foley** (co-advised James Hays): Fall 2019 - Spring 2022
    Graduated Spring 2022: Next NASA
    Co-advised James Hays

11. **Deeksha Kartik**: Fall 2020 - Spring 2022
    Graduated Spring 2022: Next PathAI
12. **Kartik Sarangmath**: Fall 2021 - Fall 2022
    Graduated Fall 2022: Next Startup
13. **Fu Lin**: Spring 2020 - Summer 2020
    Graduated Fall 2020: now Data Scientist at AWS Beijing
14. **Shivam Khare**: Fall 2020 - Spring 2021
    Graduated Spring 2021: now Research Engineer at Twitter
15. **Arvind Krisnakumar**: Spring 2020 - Spring 2021
    Graduated Spring 2021: Next AWS

B.2.b. In Progress M.S. Students

B.2.c. Special Problems MS Students

16. **Luis Bermudez**: Spring 2021
17. **James Hahn**: Spring 2020

B.3 Undergraduate Students Supervised

1. **Ajay Bati**: Fall 2023 - Present
2. **Bogi Ecsedi**: Spring 2023 - Present
3. **Jakob Bjorner**: Fall 2022 - Fall 2023
   President's Undergraduate Research Award (PURA) at GT
4. **Bharat Goyal**: Spring 2023
5. **Vivek Vijaykumar**: Fall 2021 - Fall 2023
   Graduated Fall 2023: Next GT MS
6. **Sruthi Sudhakar**: Fall 2020 - Spring 2022
   President's Undergraduate Research Award (PURA) at GT
   Awarded NSF Graduate research fellowship
   Awarded GT Outstanding Ugrad Research Award
   Next PhD program at Columbia CS
7. **Kartik Sarangmath**: Spring 2021
   Graduated Spring 2021 joining BS/MS Program at GT
8. **Rohit Mittapalli**: Spring 2020 - Spring 2021
   Accepted role at Self-Driving Startup
9. **Hazel Jiang**: Fall 2020

B.4 Ph.D. Thesis Committee - Georgia Tech

1. **Jay Wang**, College of Computing, Advisor: Polo Chau, expected 2024
2. **Prithvijit Chattopadhyay**, College of Computing, Advisor: Judy Hoffman, expected 2024
3. **Daniel Bolya**, College of Computing, Advisor: Judy Hoffman, expected 2024
4. **Junjiao Tian**, College of Computing, Advisor: Zsolt Kira, expected 2024

5. **Anh Ngoc Thai**, College of Computing, Advisors: Jim Rehg, Judy Hoffman, expected 2024
6. **Haeku Park**, College of Computing, Advisor: Polo Chau, 2023
   Thesis: *Interactive Scalable Discovery of Concepts, Evolutions, and Vulnerabilities in Deep Learning*
7. **Stefan Stojanov**, College of Computing, Advisors: Jim Rehg, Judy Hoffman, 2023
   Thesis: *Shape-Biased Representations For Object Category Recognition*
8. **Vincent Cartillier**, College of Computing, Advisor: Irfan Essa, 2023
   Thesis: *From 3D Mapping To Scene Representations For Embodied Ai*
9. **Cusuh Ham**, College of Computing, Advisor: James Hays, 2023
   Thesis: *Controllability And Uncertainty In Generative Models*
10. **James Smith**, College of Computing, Advisor: Zsolt Kira, 2023
    Thesis: *Lifelong Machine Learning Without Lifelong Data Retention*
11. **Viraj Prabhu**, College of Computing, Advisor: Judy Hoffman, 2023
    Thesis: *Towards Reliable Computer Vision Systems*
12. **Yen-Cheng Liu**, College of Computing, Advisor: Zsolt Kira, 2023
    Thesis: *Efficient Visual Learning For Scene Understanding*
13. **Chia-Wen Kuo**, College of Computing, Advisor: Zsolt Kira, 2023
    Thesis: *Knowledge-Augmented Vision-and-Language Assistant*
14. **Samyak Datta** College of Computing, Advisor: Devi Parikh, 2022
    Thesis: *Towards Realistic Embodied AI Agents*
15. **Supriya Nagesh** College of Computing, Advisor: Jim Rehg, 2022
    Thesis: *Developing Transferable Deep Models for Mobile Health*
16. **Jinsol Lee** College of Engineering, Advisor: Ghassan AlRegib, 2021
    Thesis: *Towards Understanding the Purview of Neural Networks via Representation Learning*
17. **Joseph Oluwaseun Aribido** College of Engineering, Advisor: Ghassan AlRegib, 2021
    Thesis: *Self-Supervised Disentanglement For Image Segmentation With Application To Seismic Interpretation*
18. **Himanshu Sahni** College of Computing, Advisor: Charles Isbell, 2021
    Thesis: *Hallucinating Agent Experience to Speed Up Reinforcement Learning*
19. **Ramprasaath Ramasamy Selvaraju** College of Computing, Advisor: Devi Parikh, 2020
    Thesis: *Explaining Model Decisions and Correcting them via Human Feedback*
20. **Yen-Chang Hsu** College of Computing, Advisor: Zsolt Kira, 2020
    Thesis: *Learning from Pairwise Similarity for Visual Class Discovery and Segmentation*
21. **Steven Hickson** College of Computing, Advisor: Irfan Essa, 2020
    Thesis: *Encoding 3D Contextual Information For Dynamic Scene Understanding*
22. **Jianwei Yang** College of Computing, Advisor: Devi Parikh, 2020
    Thesis: *Structured Visual Understanding, Generation and Reasoning*
23. **Jiasen Lu** College of Computing, Advisor: Devi Parikh, 2020
    Thesis: *Visually Grounded Language Understanding and Generation*

B.5 Mentorship of Postdoctoral Fellows or Visiting Scholars

B.4.a. Postdoctoral Fellows

1. **Vince Cartillier**: Spring 2024 - Present
   Co-advised with Irfan Essa

C Educational Innovations and Other Contributions

C.1 Curriculum Development

CS 7647 / 8803-LS (Machine Learning with Limited Supervision): This is a graduate course which focuses on new techniques in forms of learning representations from data with limited human intervention. Students will be exposed to cutting edge research and technologies and will learn to understand, explain to others and critically evaluate new work. Finally, the course involves a semester long project in which students work in teams to develop new learning approaches or apply existing approaches to new applications. Throughout the semester teaching and learning will focus on gaining the ability to digest and critically analyze new research. Students are expected to work together through presentations, formal debates, and discussions towards achieving this goal. This course was converted into a permanent course after repeated enrollment interest and positive reception.

VI Service

A Professional Contributions

A.1 Editorial and Reviewer Work for Technical Journals and Publishers

- Editorial Work

  1. Associate Editor for IEEE Transactions on Pattern Analysis and Machine Intelligence (T-PAMI), 2023
  2. Associate Editor for IEEE Transactions on Pattern Analysis and Machine Intelligence (T-PAMI), 2022
  3. Associate Editor for International Journal on Computer Vision (IJCV), 2021
  4. Associate Editor for IEEE Transactions on Pattern Analysis and Machine Intelligence (T-PAMI), 2021
  5. Associate Editor for International Journal on Computer Vision (IJCV), 2021
  6. Associate Editor for International Journal on Computer Vision (IJCV), 2020

- Reviewer for

  1. IEEE Transactions on Pattern Analysis and Machine Intelligence (T-PAMI), 2018
  2. International Journal on Computer Vision (IJCV), 2018
  3. IEEE Transactions on Pattern Analysis and Machine Intelligence (T-PAMI), 2017
  4. Journal of Machine Learning Research (JMLR), 2017
  5. IEEE Transactions on Pattern Analysis and Machine Intelligence (T-PAMI), 2016
  6. Journal of Machine Learning Research (JMLR), 2016
  7. IEEE Transactions on Pattern Analysis and Machine Intelligence (T-PAMI), 2015
  8. Journal of Machine Learning Research (JMLR), 2015
  9. IEEE Transactions on Pattern Analysis and Machine Intelligence (T-PAMI), 2014
  10. Journal of Machine Learning Research (JMLR), 2014
  11. IEEE Transactions on Pattern Analysis and Machine Intelligence (T-PAMI), 2013
  12. Journal of Machine Learning Research (JMLR), 2013

A.2 Committee Work for Top-Tier Conferences

- Leadership Roles
  1. Program Committee Chair: IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR), Vancouver, Canada 2022-2023
     One of five PC Chairs for the top Computer Vision conference supporting ∼8K paper submissions.
  2. Tutorials Chair: IEEE/CVF International Conference in Computer Vision (ICCV), Paris, France, 2023
- Area Chair (Meta-Reviewer)
  1. IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR), Seattle, USA , 2024
  2. Neural Information Processing Symposium (NeurIPS), New Orleans, LA, 2023
  3. Neural Information Processing Symposium (NeurIPS), Virtual, 2021
  4. IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR), Virtual , 2021
  5. IEEE/CVF International Conference in Computer Vision (ICCV), Virtual, 2021
  6. International Conference on Learning Representations (ICLR), Virtual, 2020
  7. IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR), Virtual, 2020
  8. International Conference in Machine Learning (ICML), Virtual, 2020
  9. IEEE/CVF International Conference in Computer Vision (ICCV), Seoul, Korea, 2019
  10. International Conference on Learning Representations (ICLR), New Orleans, LA, 2019
  11. IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR), Long Beach, CA, 2019
- Reviewer
  1. IEEE/CVF International Conference in Computer Vision (ICCV), Paris, France, 2023
  2. IEEE/CVF Winter Conference in Applications in Comptuer Vision (WACV), Hawaii, USA, 2023
  3. IEEE/CVF Conference on Computer Vision and Pattern Recognition, New Orleans, USA, 2022
  4. European Conference in Computer Vision (ECCV), Virtual, 2020
  5. IEEE International Conference on Robotics and Automation (ICRA), Montreal, Canada, 2019
  6. International Conference in Machine Learning (ICML), Long Beach, CA, 2019
  7. IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR), Salt Lake City, UT, 2018
  8. European Conference in Computer Vision (ECCV), Munich, Germany, 2018.
  9. Neural Information Processing Symposium (NeurIPS), Montreal, Canada, 2018
  10. International Conference on Learning Representations (ICLR), Vancouver, Canada, 2018
  11. IEEE International Conference on Robotics and Automation (ICRA), Brisbane, Australia, 2018
  12. International Conference in Machine Learning (ICML), Stockholm, Sweden, 2018
  13. IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR), Honolulu, Hawaii, 2017
  14. IEEE/CVF International Conference in Computer Vision (ICCV), Venice, Italy, 2017
  15. Neural Information Processing Symposium (NeurIPS), Long Beach, CA, 2017
  16. IEEE International Conference on Robotics and Automation (ICRA), Marina Bay Sands, Singapore, 2017
  17. International Conference in Machine Learning (ICML), Sydney, Australia, 2017
  18. IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR), Las Vegas, NV, 2016
  19. European Conference in Computer Vision (ECCV), Amsterdam, Netherlands, 2016.

20. Neural Information Processing Symposium (NeurIPS), Barcelona, Spain, 2016
21. IEEE International Conference on Robotics and Automation (ICRA), Stockholm, Sweden, 2016
22. IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), Daejeon, Korea, 2016.
23. IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR), Boston, MA, 2015
24. IEEE/CVF International Conference in Computer Vision (ICCV), Santiago, Chile, 2015
25. IEEE International Conference on Robotics and Automation (ICRA), Hong Kong, China, 2015.
26. IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), Seattle, WA, 2015.
27. IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR), Columbus, Ohio, 2014
28. IEEE International Conference on Robotics and Automation (ICRA), Hong Kong, China, 2014.
29. IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), Chicago, IL, 2014.

A.3 Conferences, Workshops, and External Courses

1. Workshop Organizer: ICCV Workshop on Computer Vision for Metaverse, 2023
2. Workshop Organizer: ICCV Workshop on Adversarial Robustness in the Wild, 2023
3. Workshop Organizer: ECCV Workshop on Responsible Computer Vision, 2022
4. Workshop Organizer: ECCV Workshop on Adversarial Robustness in the Wild, 2022
5. Workshop Organizer: ECCV Workshop on Learning with Limited or Imperfect Data, 2022
6. Workshop Organizer: ICCV Workshop LVIS Challenge, 2021
7. Workshop Organizer: ICCV Workshop on Adversarial Robustness in the Wild, 2021
8. Tutorial Organizer: CVPR Tutorial on Adversarial Machine Learning in Computer Vision, 2021
9. Workshop Organizer: CVPR Workshop on Learning from Limited or Imperfect Data, 2021
10. Workshop Organizer: CVPR Workshop on Responsible Computer Vision, 2021
11. Tutorial Organizer: ICCV Tutorial on Learning with Limited Labels, 2019
12. Workshop Organizer: ICCV Workshop on Transferring and Adapting Source Knowledge in Computer Vision, 2019
13. Workshop Organizer: ECCV Workshop on Transferring and Adapting Source Knowledge in Computer Vision, 2018
14. Workshop Organizer: ICCV Workshop on Transferring and Adapting Source Knowledge in Computer Vision, 2017
15. Workshop Organizer: CVPR Inagural Women in Computer Vision Workshop, 2015
16. Workshop Organizer: NeurIPS Workshop on transfer and multi-task learning, 2015

A.4 Research Project Reviewer

1. NSF CISE IIS RI Grant Reviewer, 2024
2. NSF Robust Intelligence Grant Reviewer, 2023
3. ARO/ARL Grant Reviewer, 2020

A.5 Invited Conference Session Chairmanships

1. IEEE/CVF Computer Vision and Pattern Recognition, Long Beach, CA, 2019
2. IEEE/CVF International Conference on Computer Vision, Seoul, Korea, 2019
3. IEEE/CVF Computer Vision and Pattern Recognition, Salt Lake City, UT, 2018

A.6 External Thesis Committee

- Luyu Yang, Advisor: Abhinav Srivastana, University of Maryland College Park, 2022

B Public and Community Service

B.1 Leadership

- Co-founder Women in Computer Vision and inaugural workshop organizer, 2015-Present
- Organizer: Grace Hopper Celebration for Women in Computing Conference Session on Applying to PhD Programs, 2012

B.2 Mentoring and Outreach

- Mentor of Georgia High School teacher through CEISMC GIFT program, 2023
  Developed a module to teach high school students about using Generative AI
- Doctoral Consortium Mentor at ICCV, 2023
- Mentor at Women in Computer Vision, co-located at ICCV, 2023
- Mentor at Women in Computer Vision, co-located at CVPR, 2023
- Mentor at Women in Computer Vision, co-located at ICCV, 2021
- Mentor at IEEE/CVF Computer Vision and Pattern Recognition Conference to Junior Researchers, 2021
- Mentor at Women in Computer Vision, co-located at CVPR, 2021
- Speaker at Woodward Academy (High School) on Bias in AI, 2021
- Research Advisor to female MS student at African Masters in Machine Intelligence hosted by African Institute for Mathematical Sciences, 2020
- Mentor at Women in Computer Vision, co-located at CVPR, 2020
- Mentor at Doctoral Consortium at ICCV, 2019
- Mentor at Women in Computer Vision, co-located at CVPR, 2019
- Panelist at Berkeley-Stanford Women in Computer Science Meetup, 2019
- Mentor at Women in Computer Vision, co-located at CVPR, 2018
- Mentor at Women in Machine Learning, co-located with NeurIPS, 2018
- EECS Peers Mentor (UC Berkeley), 2013-2016
- Outreach and Diversity Officer of the CS Graduate Student Association (UC Berkeley), 2013-2014

C Institute Contributions

C.1 On-campus Georgia Tech Committees

- Faculty Executive Board, 2024-2025
- Faculty Executive Board, 2023-2024
- School Advisory Committee, School of Interactive Computing, 2022-2023
- School Advisory Committee, School of Interactive Computing, 2021-2022
- PhD Recruitment Visit Coordinator, 2020-2021
- PhD Recruitment Visit Coordinator, 2019-2020

C.2 Member of Ph.D. Examining Committees

- Ph.D. Qualifier Committee - Georgia Tech

1. **Simar Kareer**, IS - CS Quals, Advisor: Judy Hoffman, 2024
2. **Matthew Lau**, IS - CS Quals, Advisor: Wenke Lee, 2024
3. **Nikolai Warner**, Robo Quals, Advisor: Irfan Essa, 2024
4. **Shuo Kuo**, IS - CS Quals, Advisor: Danfei Xu, 2023
5. **Benjamin Hoover**, Advisor: Zsolt Kira, 2023
6. **Bolin Lai**, ML Quals, Advisor: Jim Rehg, 2023
7. **Yao Dou**, Advisor: Wei Xu, 2023
8. **Fiona Ryan**, IS - CS Quals, Advisors: Jim Rehg, Judy Hoffman, 2023
9. **Max (Nghia T Le)**, IS - CS Quals, Advisor: Alan Ritter, 2023
10. **George Stoica**, ML Quals, Advisor: Judy Hoffman, 2023
11. **Mustafa Burak Gurbuz**, ML Quals, Adivsor: Constantine Dovrolis, 2022
12. **Xinyuan Cao**, ML Quals, Advisor: Santosh Vempala, 2022
13. **Zixuan Huang**, IS - CS Quals, Adivsor: Jim Rehg, 2022
14. **William Held**, ML Quals, Advisor: Diyi Yang, 2022
15. **Arjun Majumdar** College of Computing, Advisor: Dhruv Batra, 2021
16. **Daniel Bolya** College of Computing, Advisor: Judy Hoffman, 2021
17. **Prithvijit Chattopadhyay** College of Computing, Advisor: Judy Hoffman, 2021
18. **Austin Wright** College of Computing, Advisor: Polo Chau, 2021
19. **Cusuh Ham** College of Computing, Advisor: James Hays, 2021
20. **Shreyas Malakarjun Patil** College of Computing, Advisor: Constantine Dovrolis, 2021
21. **Jay Wang** College of Computing, Advisor: Polo Chau, 2021
22. **Cameron Taylor** College of Computing, Advisor: Constantine Dovrolis, 2021
23. **Viraj Prabhu** College of Computing, Advisor: Judy Hoffman, 2020
24. **James Smith** College of Computing, Advisor: Zsolt Kira, 2020
25. **Varun Agrawal** College of Computing, Advisor: Frank Dellaert, 2020
26. **Yen-Cheng Liu** College of Computing, Advisor: Zsolt Kira, 2020
27. **Daniel Scarafoni** College of Computing, Advisors: Thomas Ploetz and Irfan Essa, 2020
28. **Harsh Argarwal** College of Computing, Advisor: Dhruv Batra, 2019
29. **Samyak Datta** College of Computing, Advisor: Devi Parikh, 2019

C.3 Community Service and Leadership

- Panelist at "AI Am I" Session with GT Alumni Association, 2024
- Co-organizer for EECS Rising Stars Workshop, 2023
- Discussion Leader at Mindful Mentorship Workshop, May 2023
- Organizing Mentoring Program for Women in Computing as Diversity and Inclusion Fellow, Georgia Tech 2021-2022
- Organizer ML at GT weekly social hour to build community, 2020
- Led session for undergraduates on applying to PhD programs (Georgia Tech), 2020
- Organizer and Panelist on applying to academic jobs (Georgia Tech), 2019
- Organizer and Panelist on building a professional network (Georgia Tech), 2019