

Judy Hoffman

CONTACT INFORMATION	Assistant Professor College of Computing Georgia Institute of Technology	<i>E-mail:</i> judy@gatech.edu <i>Website:</i> https://www.cc.gatech.edu/~judy/
RESEARCH INTERESTS	My research lies at the intersection of computer vision and machine learning. I develop learning algorithms which facilitate the transfer of information through unsupervised and semi-supervised model adaptation and generalization. My work reuses and shares information across visual environments and tasks, enabling learning systems to tackle real-world variation and scale while minimizing human supervision.	
APPOINTMENTS	Georgia Tech Atlanta, GA <i>Assistant Professor, College of Computing</i>	Since August 2019
	Facebook AI Research Menlo Park, CA <i>Visiting Research Scientist</i>	September 2018 - July 2019
	University of California, Berkeley Berkeley, CA <i>Postdoctoral Researcher with Trevor Darrell and Alyosha Efros</i>	June 2017 - August 2018
	Stanford University Palo Alto, CA <i>Postdoctoral Researcher with Fei-Fei Li</i>	August 2016 - June 2017
	Google Research: Machine Perception Team <i>Software Engineering Intern, PhD</i>	Mountain View, CA May 15, 2012 - August 10, 2012
HONORS AND AWARDS	PAMI Young Researcher Award Awarded annually to 1-2 researchers at CVPR NSF CAREER Award <i>Vision Systems for an Evolving World</i> Google Research Scholar Award Best Paper Award NeurIPS Workshop on Vision Transformers Theory and Applications Best Paper Award ECCV Workshop on Computational Aspects of Deep Learning Samsung AI Researcher of the Year Awarded to 5 researchers worldwide Diversity and Inclusion Fellow Georgia Tech Female Leader in CV Awarded by NVIDIA ECCV Outstanding Reviewer Award AI2000 Most Influential Scholar Honorable Mention for ML Awarded by AiMiner “Thank-a-Teacher” Award , Georgia Tech Best Paper Runner-up Adversarial Robustness in the Real World (AROW) at ECCV NeurIPS Top 30% Reviewers Rising Stars in EECS National Science Foundation Graduate Research Fellowship Best Paper Award Web-scale Vision and Social Media Workshop at ECCV Rosetta Stone Ltd Grace Hopper Scholarship Best Student Paper Domain Adaptation workshop at NeurIPS Rosalie M. Stern Fellowship Arthur M. Hopkin Award SRC Undergraduate Research Scholarship Intel Undergraduate Research Scholarship	2023 2022 2022 2022 2022 2021 2021-2022 2020 2020 2020 2020 2019,2020 2020 2018 Fall 2015 2012-2015 2012 August 2012 2011 August 2010 - May 2011 May 2010 August 2009 - May 2010 March 2008 - August 2009

Eta Kappa Nu, Member and Officer
Rose Hills Engineering Scholarship
Edward Frank Kraft Award

December 2007 - Spring 2010
August 2007 - May 2008
January 2007

EDUCATION

University of California, Berkeley,

August 2010 - August 2016

PhD, Electrical Engineering and Computer Science
Advised by Trevor Darrell

University of California, Berkeley

August 2006 - May 2010

Bachelor of Science, Electrical Engineering and Computer Science Honors Program
Graduated with Department Honors
Advised by Ken Goldberg

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.

JOURNAL
PUBLICATIONS

[2] Simar Kareer, Vivek Vijaykumar, Harsh Maheshwari, Prithvijit Chattopadhyay, **Judy Hoffman**, Viraj Prabhu. “We’re Not Using Videos Effectively: An Updated Video Domain Adaptation Baseline”, *Transactions on Machine Learning Research (TMLR)*, 2024

[3] Viraj Prabhu, David Acuna, Yuan-Hong 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*, 2021.

[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.

CONFERENCE
PUBLICATIONS

[8] Prithvijit Chattopadhyay, Bharat Goyal, Bogi Ecsedi, Viraj Prabhu, **Judy Hoffman**. “AUG-CAL: Sim-to-Real Adaptation by Improving Uncertainty Calibration on Augmented Synthetic Images”, *International Conference on Learning Representations (ICLR)*, 2024

[9] 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

[10] George Stoica, Daniel Bolya, Jakob Bjorner, Pratik Ramesh, Taylor Hearn, **Judy Hoffman**. “ZipIt! Merging Models from Different Tasks without Training” *International Conference on Learning Representations (ICLR)*, 2024

- [11] 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.
- [12] 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.
- [13] 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)
- [14] 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.
- [15] 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)
- [16] 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](#)
- [17] Daniel Bolya, Cheng-Yang Fu, Xiaoliang Dai, Peizhao Zhang, Christoph Feichtenhofer, **Judy Hoffman**. “Token Merging: Your ViT But Faster”, *International Conference on Learning Representations (ICLR)*, 2023. [Notable Top 5%](#)
- [18] 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.
- [19] 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.
- [20] 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.
- [21] 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)
- [22] 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.
- [23] 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
- [24] Sruthi Sudhakar, Viraj Prabhu, Arvind Krishnakumar, **Judy Hoffman**. “Mitigating Bias in Visual Transformers via Targeted Alignment”, *British Machine Vision Conference (BMVC)*, 2021.

- [25] Arvind Krishnakumar, Viraj Prabhu, Sruthi Sudhakar, **Judy Hoffman**. “UDIS: Unsupervised Discovery of Bias in Deep Visual Recognition Models”, *British Machine Vision Conference (BMVC)*, 2021.
- [26] Daniel Bolya*, Rohit Mittapali*, **Judy Hoffman**. “Scalable Diverse Model Selection for Accessible Transfer Learning”, *Neural Information Processing Systems (NeurIPS)*, 2021.
- [27] 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.
- [28] Prithvijit Chattopadhyay, **Judy Hoffman**, Roozbeh Mottaghi, Ani Kembhavi. “RobustNav: Towards Benchmarking Robustness in Embodied Navigation.” *International Conference in Computer Vision (ICCV)*, 2021. ([Oral Presentation](#))
- [29] Viraj Prabhu, Arjun Chandrasekaran, Kate Saenko, **Judy Hoffman**. “Active Domain Adaptation via Clustering Uncertainty-weighted Embeddings.” *International Conference in Computer Vision (ICCV)*, 2021.
- [30] 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.
- [31] 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.
- [32] Baifeng Shi, **Judy Hoffman**, Kate Saenko, Trevor Darrell, Huijuan Xu. “Auxiliary Task Reweighting for Minimum-data Learning”. *Neural Information Processing Systems (NeurIPS)*, 2020.
- [33] 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.
- [34] 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](#))
- [35] 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.
- [36] Harish Haresamudram, Apoorva Beedu, Varun Agrawal, Patrick L Grady, Irfan Essa, **Judy Hoffman**, Thomas Ploetz. “Masked Reconstruction based Self-Supervision for Human Activity Recognition”, *Proceedings of the International Symposium on Wearable Computers (ISWC)*, 2020.
- [37] **Judy Hoffman**, Daniel A. Roberts, Sho Yaida. “Robust Learning with Jacobian Regularization” *Conference on the Mathematical Theory of Deep Learning (DeepMath)*, 2019.
- [38] Daniel Gordon, Abhishek Kadian, Devi Parikh, **Judy Hoffman**, Dhruv Batra. “SplitNet: Sim2Sim and Task2Task Transfer for Embodied Visual Navigation”, *International Conference in Computer Vision (ICCV)*, 2019.
- [39] **Judy Hoffman**, Mehryar Mohri, Ningshan Zhang. “Algorithms and Theory for Multiple-Source Adaptation”, *Neural Information Processing Symposium (NeurIPS)*, 2018.
- [40] **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.
- [41] Liyue Shen, Serena Yeung, **Judy Hoffman**, Greg Mori, Li Fei-Fei. “Scaling Human-Object Interaction Recognition through Zero-Shot Learning”, *Winter Conference on Applications in Computer Vision (WACV)*, 2018.

- [42] 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.
- [43] Timnit Gebru, **Judy Hoffman**, Li Fei-Fei, “Fine-grained Recognition in the Wild: A Multi-Task Domain Adaptation Approach ”, *International Conference in Computer Vision (ICCV)*, 2017.
- [44] 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”, *International Conference in Computer Vision (ICCV)*, 2017. ([Oral Presentation](#))
- [45] Eric Tzeng, **Judy Hoffman**, Kate Saenko, Trevor Darrell. “Adversarial Discriminative Domain Adaptation”, *In Proc. Computer Vision and Pattern Recognition (CVPR), Hawaii, USA, 2017*.
- [46] **Judy Hoffman**, Saurabh Gupta, Trevor Darrell. “Learning with Side Information through Modality Hallucination”, *In Proc. Computer Vision and Pattern Recognition (CVPR)*, Las Vegas, USA, 2016. ([Spotlight Presentation](#))
- [47] Saurabh Gupta, **Judy Hoffman**, Jitendra Malik. “Cross Modal Distillation for Supervision Transfer”, *In Proc. Computer Vision and Pattern Recognition (CVPR)*, Las Vegas, USA, 2016.
- [48] Xingchao Peng, **Judy Hoffman**, Stella Yu, Kate Saenko. “Fine-to-coarse Knowledge Transfer For Low-Res Image Classification”. *International Conference on Image Processing*, 2016.
- [49] **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.
- [50] Eric Tzeng*, **Judy Hoffman***, Trevor Darrell, Kate Saenko. “Simultaneous Deep Transfer Across Domains and Tasks”, *In Proc. International Conference on Computer Vision (ICCV)*, Santiago, Chile, 2015. *Equal Contribution
- [51] Damian Mowroca, Marcus Rohrbach, **Judy Hoffman**, Ronghang Hu, Kate Saenko, Trevor Darrell. “Spatial Semantic Regularisation for Large Scale Object Detection”, *In Proc. International Conference on Computer Vision (ICCV)*, Santiago, Chile, 2015.
- [52] **Judy Hoffman**, Deepak Pathak, Trevor Darrell, Kate Saenko. “Detector Discovery in the Wild: Joint Multiple Instance and Representation Learning,” *In Proc. Computer Vision and Pattern Recognition (CVPR)*, Boston, USA, 2015.
- [53] **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.
- [54] **Judy Hoffman**, Trevor Darrell, and Kate Saenko. “Continuous Manifold Based Adaptation for Evolving Visual Domains”, *In Proc. Computer Vision and Pattern Recognition (CVPR)*, Ohio, USA, 2014.
- [55] Daniel Goehring, **Judy Hoffman**, Erik Rodner, Kate Saenko and Trevor Darrell. “Interactive Adaptation of Real-Time Object Detectors”, *In Proc. International Conference on Robotics and Automation (ICRA)*, Hong Kong, China, 2014.
- [56] 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.
- [57] **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](#))
- [58] Jeff Donahue, **Judy Hoffman**, Erik Rodner, Kate Saenko, Trevor Darrell. “Semi-Supervised Domain Adaptation with Instance Constraints”, *In Proc. Computer Vision and Pattern Recognition (CVPR)*, Portland, Oregon, 2013.

WORKSHOP
PUBLICATIONS

- [59] **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.
- [60] 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.
- [61] 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”, *ICML AI/HCI Workshop*, 2023.
- [62] Sruthi Sudhakar, Viraj Prabhu, Olga Russakovsky, **Judy Hoffman**. “ICON2: Reliably Benchmarking Predictive Inequity in Object Detection”, *Secure and Safe Autonomous Driving (SSAD) Workshop and Challenge Workshop at CVPR*, 2023.
- [63] Daniel Bolya, **Judy Hoffman**. “Token Merging for Fast Stable Diffusion”. *Efficient Deep Learning for Computer Vision Workshop at CVPR*, 2023.
- [64] Sachit Kumar, Alexey Tumanov, **Judy Hoffman**. “Signed Binary Weight Networks”. *3rd On-Device Intelligence Workshop at MLSys*, 2023.
- [65] 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](#)
- [66] Viraj Prabhu, Shivam Khare, Deeksha Kartik, **Judy Hoffman**. “Augmentation Consistency-guided Self-training for Source-free Domain Adaptive Semantic Segmentation”, *NeurIPS Workshop DistShift*, 2022.
- [67] Arjun Majumdar, Gunjan Aggarwal, Bhavika Suresh Devnani, **Judy Hoffman**, Dhruv Batra. “ZSON: Zero-Shot Object-Goal Navigation using Multimodal Goal Embeddings”, *CoRL Workshop on Pre-training Robot Learning*, 2022.
- [68] 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](#)
- [69] 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
- [70] 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](#)
- [71] Benjamin Wilson, **Judy Hoffman**, Jamie Morgenstern. “Predictive Inequity in Object Detection”, *Workshop on Fairness Accountability Transparency and Ethics at CVPR*, 2019.
- [72] Andreea Bobu, Eric Tzeng, **Judy Hoffman**, Trevor Darrell. “Adapting to Continuously Shifting Domains”, *International Conference on Learning Representations (ICLR) Workshop Track*, 2018.
- [73] Evan Shelhamer*, Kate Rakelly*, **Judy Hoffman***, Trevor Darrell. “Clockwork Convnets for Video Semantic Segmentation.” *Workshop on Video Segmentation hosted at ECCV*, 2016.
- [74] 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.

- [75] Oscar Beijbom, **Judy Hoffman**, Evan Yao, Trevor Darrell, Alberto Rodriguez - Ramirez, Manuel Gonzalez - Rivero, Ove Hoegh - Guldberg. “Quantification in-the-wild: data-sets and baselines.” *NIPS Workshop Transfer and Multi-task Learning: Trends and New Perspectives*, 2015.
- [76] **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.
- [77] 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.
- [78] 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](#))
- [79] **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](#))

PRE-PRINTS

- [80] Yogesh Balaji, Tom Goldstein, **Judy Hoffman**. “Instance adaptive adversarial training: Improved accuracy tradeoffs in neural nets.” <https://arxiv.org/abs/1910.08051>, 2020.
- [81] **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.

ACADEMIC TALKS

- [1] **CoRL 2023 Workshop on Out-of-Distribution Generalization**
Invited Talk: From Visual Generalization to Robotics Generalization Oct 2023
- [2] **GeoNet: Unsupervised Adaptation across Geographies Workshop at ICCV**
Invited Talk: Discovering and Interpreting Model Bias Sep 2023
- [3] **Plenary Session at CVPR 2023 on Vision, Language, and Creativity**
Panel Moderator May 2023
- [4] **11th Women in Computer Vision (WiCV) workshop at CVPR 2023**
Invited Talk: Efficient and Reliable Vision Models May 2023
- [5] **Synthetic Data for Autonomous Systems (SDAS) Workshop at CVPR 2023**
Invited Talk: Reliable Vision for a Changing World May 2023
- [6] **6th Efficient Deep Learning for Computer Vision workshop at CVPR2023**
Invited Talk: Increasing Efficiency by Reducing Redundancy May 2023
- [7] **The 3rd Workshop of Adversarial Machine Learning on Computer Vision: Art of Robustness at CVPR 2023**
Invited Talk: Reliable Vision for a Changing World May 2023
- [8] **IRIM Robotics Symposium**
Panelist on Safety and Hype in AI Apr 2023
- [9] **Boston University CISE Seminar**
Invited Talk: Reliable Vision for a Changing World Mar 2023
- [10] **Google Machine Perception Seminar**
Invited Talk: Reliable Vision for a Changing World Jan 2023

- [11] **Dagstuhl Seminar on Developmental Machine Learning: From Human Learning to Machines and Back**
The Impact of Dataset Bias on Model Learning Sep 2022
- [12] **ECCV Workshop on Robust Vision**
Invited Talk: Forms of Robustness Sep 2022
- [13] **Cisco Responsible Computer Vision Workshop**
Invited Talk: The Impact of Dataset Bias Aug 2022
- [14] **Responsible Computer Vision Tutorial**
How do models fail and what can we do about it? May 2022
- [15] **Workshop at CVPR on The Art of Robustness: Devil and Angel in Adversarial Machine Learning**
Invited Talk: Forms of Robustness May 2022
- [16] **Visual Perception and Learning in an Open World at CVPR**
Invited Talk: Seeing in a Diverse World May 2022
- [17] **National Institutes of Standards and Technology (NIST)**
Invited Talk: Measuring and Mitigating Bias in Vision Systems April 2022
- [18] **MIT Vision Seminar**
Invited Talk: Reliable and Accessible Visual Recognition April 2022
- [19] **ICLR Workshop Socially Responsible ML**
Invited Talk: The Impact of Dataset Bias Apr 2022
- [20] **University of Maryland, College Park, Deep Learning Seminar**
Invited Talk: Reliable and Accessible Visual Recognition Apr 2022
- [21] **NeurIPS workshop on Distribution Shifts**
Invited Talk: Panel Discussion Nov 2021
- [22] **CMU Computer Vision Seminar Series**
Invited Talk: Selective Domain Adaptation Oct 2021
- [23] **IRIM Robotics Seminar at Georgia Tech**
Invited Talk: Understanding and Mitigating Bias in Vision Systems Sep 2021
- [24] **Deep MTL Workshop at ICCV**
Invited Talk: Moving Beyond Bespoke Models Sep 2021
- [25] **UIUC Computer Vision Seminar**
Invited Talk: Selective Domain Adaptation Sep 2021
- [26] **Adversarial Machine Learning Tutorial at CVPR**
Detecting Reliable Instances for Learning May 2021
- [27] **Responsible Computer Vision Workshop at CVPR**
Fireside Chat with Kate Crawford May 2021
- [28] **Robust Video Scene Understanding Workshop at CVPR**
Invited Talk: Lessons from Domain Adaptation for Robust Video Understanding May 2021
- [29] **Google Research**
Invited Talk: Understanding and Mitigating Model and and Dataset Bias April 2021
- [30] **Georgia Tech Google Robotics Workshop**
Invited Talk: Robust Vision for Embodied Navigation April 2021
- [31] **UC Berkeley ITS Seminar**
Invited Talk: The Perils of Learning from Biased Data Apr 2021
- [32] **TUM AI**
Invited Talk: Understanding and Mitigating Model and and Dataset Bias Mar 2021

- [33] **N.C. A and T**
Invited Talk: Understanding and Mitigating Bias in Visual Recognition Nov 2020
- [34] **US Embassy Paris and ANITI**
Invited Talk: Bias in Visual Recognition Systems Oct 2020
- [35] **John Hopkins University**
Invited Talk: Understanding and Mitigating Bias in Visual Recognition Sep 2020
- [36] **USC ISI**
Invited Talk: Understanding and Mitigating Bias in Visual Recognition Sep 2020
- [37] **Adversarial Robustness in the Wild at ECCV**
Invited Talk: Achieving and Understanding Adversarial Robustness July 2020
- [38] **Fair Face Recognition Workshop at ECCV**
Invited Talk: Analyzing Bias in Computer Vision Systems July 2020
- [39] **ARO Sponsored Workshop on Synthetic Data in AI/ML**
Invited Talk: Maximizing Transferability when Learning in Simulation June 2020
- [40] **ARO Sponsored Assured Autonomy Workshop**
Invited Talk: Making perception robust to data and model bias May 2020
- [41] **Learning with Limited Labels Workshop at CVPR**
Invited Talk: Generalizing and Actively Adapting to New Domains May 2020
- [42] **UG2 Workshop at CVPR**
Invited Talk: Making vision robust to data and model bias May 2020
- [43] **Embodied AI Workshop at CVPR**
Invited Talk: Maximizing Transferability when Learning in Simulation May 2020
- [44] **Inaugural Speaker of Frederica Darema Lecture Series at IIT Chicago**
Invited Talk: How Dataset Bias Leads to Learned Model Failures Nov 2019
- [45] **ML@GT Seminar**
Invited Talk: Analyzing Fairness in Computer Vision Systems Oct 2019
- [46] **ICCV Tutorial on Learning with Limited Labels**
Invited Talk: Domain Adaptation Tutorial Sep 2019
- [47] **CVPR Workshop: Women in Computer Vision**
Invited Talk: Adversarial Domain Adaptation and Robustness to Adversaries May 2019
- [48] **CVPR Workshop: Vision for All Seasons**
Invited Talk: Generalizing Models to a Diverse World May 2019
- [49] **MIT Workshop: GANocracy: Workshop on Theory, Practice and Artistry of Deep Generative Modeling**
Invited Talk: Adversarial Domain Adaptation April 2019
- [50] **CVPR Area Chairs Meeting**
Adapting and Generalizing Across Domains Feb 2019
- [51] **National Academy of Science Workshop: Robust Machine Learning Algorithms and Systems: Detection & Mitigation of Adversarial Attacks and Anomalies**
Invited Talk: Domain Adaptation Nov 2018
- [52] **NeurIPS Workshop: Integration of Deep Learning Theories**
Invited Talk: Domain Adaptation and Multisource Generalization Nov 2018
- [53] **ICML Conference Presentation**
Cycle Consistent Adversarial Domain Adaptation June 2018
- [54] **Facebook AI Research**
Invited Talk: Adaptive Adversarial Learning for a Diverse Visual World May 2018

- [55] **CVPR Workshop on Robust Vision**
Invited Talk: Making our Models Robust to Changing Visual Environments May 2018
- [56] **CVPR Workshop on Vision with Biased or Scarce Data**
Invited Talk: Making your data count: sharing information across domains and tasks May 2018
- [57] **CVPR Tutorial on GANs**
Invited Talk: Adversarial Domain Adaptation May 2018
- [58] **University of Maryland, College Park**
Invited Talk: Adaptive Adversarial Learning for a Diverse Visual World Apr 2018
- [59] **University of Virginia**
Invited Talk: Adaptive Adversarial Learning for a Diverse Visual World Apr 2018
- [60] **Georgia Institute of Technology**
Invited Talk: Adaptive Adversarial Learning for a Diverse Visual World Mar 2018
- [61] **Massachusetts Institute of Technology**
Invited Talk: Adaptive Adversarial Learning for a Diverse Visual World Mar 2018
- [62] **University of Wisconsin, Madison**
Invited Talk: Adaptive Adversarial Learning for a Diverse Visual World Mar 2018
- [63] **University of North Carolina, Chapel Hill**
Invited Talk: Adaptive Adversarial Learning for a Diverse Visual World Mar 2018
- [64] **Carnegie Mellon University**
Invited Talk: Adaptive Adversarial Learning for a Diverse Visual World Mar 2018
- [65] **University of Massachusetts Amherst**
Invited Talk: Adaptive Adversarial Learning for a Diverse Visual World Feb 2018
- [66] **University of Chicago**
Invited Talk: Adaptive Adversarial Learning for a Diverse Visual World Feb 2018
- [67] **UC Santa Barbara**
Invited Talk: Adaptive Adversarial Learning for a Diverse Visual World Feb 2018
- [68] **New York University**
Invited Talk: Adaptive Adversarial Learning for a Diverse Visual World Feb 2018
- [69] **Berkeley Deep Drive Symposium**
Invited Talk: Domain adaptation: From simulation data to real world training data Sep 2017
- [70] **Qualcomm Research**
Invited Talk: A General Framework for Domain Adversarial Learning June 2017
- [71] **OpenAI**
Invited Talk: A General Framework for Domain Adversarial Learning May 2017
- [72] **Berkeley Artificial Intelligence Research (BAIR) Seminar**
Invited Talk: A General Framework for Domain Adversarial Learning Apr 2017
- [73] **ReWork Deep Learning Summit SF**
Invited Talk: A General Framework for Domain Adversarial Learning Jan 2017
- [74] **Yahoo Japan**
Invited Talk: Deep Domain Adaptation Mar 2016
- [75] **Sony Japan**
Invited Talk: Deep Domain Adaptation Mar 2016
- [76] **Berkeley Artificial Intelligence (BAIR) Retreat**
Invited Talk: Adaptive Deep Learning Mar 2016
- [77] **Stanford Vision Seminar**
Invited Talk: Adapting Deep Networks Across Domains, Modalities, and Tasks Jan 2016

- [78] **ICCV TASK-CV Workshop**
Invited Talk: Adapting Deep Networks Across Domains, Modalities, and Tasks Nov 2015
- [79] **MIT Rising Stars in EECS Workshop**
Invited Talk: Adapting Deep Models for Visual Recognition in the Wild Oct 2015
- [80] **Amazon Computer Vision PhD Symposium**
Adapting Deep Networks to Real World Problems Sep 2015
- [81] **Bay Area Robotics Symposium**
Simultaneous Transfer Across Domains and Tasks Sep 2015
- [82] **Berkeley-Stanford Vision Learning Meeting**
Large scale recognition through adaptation Aug 2015
- [83] **Dagstuhl seminar on ML with Non-identically Distributed Data**
Invited Talk: Category Invariant Cross Modality Transfer Apr 2015
- [84] **IST Austria Symposium on Computer Vision and Machine Learning**
Invited Talk: Continuous Adaptation with Limited Target Labeled Data Jan 2015
- [85] **DARPA Meeting**
Invited Talk: Transfer of Deep Vision (and Language) models for “TOT” Oct 2014
- [86] **Baylearn**
LSDA: Large Scale Detection through Adaptation Sep 2014
- [87] **International Conference on Learning Representation (ICLR)**
Efficient Learning of Domain Invariant Image Representations April 2013
- [88] **Women in Machine Learning co-located at NIPS**
Discovering Latent Domains for Multisource Domain Adaptation Nov 2012

SERVICE &
LEADERSHIP

Leadership

- ICCV The 2nd computer vision for Metaverse workshop 2023
- ICCV Adversarial Robustness in the Wild Workshop Organizer 2023
- ECCV Responsible Computer Vision Workshop Organizer 2022
- ECCV Adversarial Robustness in the Wild Workshop Organizer 2022
- ECCV Learning with Limited and Imperfect Data Workshop Organizer 2022
- Diversity and Inclusion Fellow at Georgia Tech 2021-2022
- ICCV LVIS Workshop Organizer 2021
- ICCV Workshop on Adversarial Robustness in the Real World Organizer 2021
- CVPR Responsible Computer Vision Workshop Organizer 2021
- CVPR Adversarial Machine Learning in Computer Vision Workshop Organizer 2021
- CVPR Learning from Limited and Imperfect Data Workshop Organizer 2021
- ICCV Tutorial on Learning with Limited Labels Organizer 2019
- Co-founder Women in Computer Vision and inaugural workshop organizer 2015-present
- ECCV/ICCV TASK-CV workshop and domain adaptation challenge organizer 2017-2019
- NeurIPS workshop on transfer and multi-task learning organizer 2015
- Co-President Women in computer science and engineering at UC Berkeley 2012-2013

Mentoring / Outreach

- CVPR Doctoral Consortium Mentor 2022
- CVPR Mentor to Junior Researchers 2021
- Bias in AI Panel at Woodward Academy High School Spring 2021
- Advisor for African Masters Program in AI Fall 2020
- Panelist on applying to academic jobs (Georgia Tech) 2019
- Panelist on building a professional network (Georgia Tech) 2019
- ICCV Doctoral Consortium Mentor 2019
- Mentor at Women in Computer Vision 2018-2022

Mentor at Women in Machine Learning	2018
EECS Peers Mentor	2013 - 2016
Graduate mentor to 2-3 undergraduate women per year	2010 - 2016
Outreach and Diversity Officer of the CS graduate association (UC Berkeley)	2013-2014
Organized Workshop on Applying to Graduate school at Grace Hopper Conference	2012

Thesis Committees

James Smith (advisor: Zsolt Kira) - PhD	expected 2024
Chia-Wen Kuo (advisor: Zsolt Kira) - PhD	expected 2024
Cusuh Ham (advisor: James Hays) - PhD	expected 2023
Viraj Prabhu (advisor: Judy Hoffman) - PhD	expected 2023
Haeku Park (advisor: Polo Chau) - PhD	expected 2023
Yen-Cheng Liu (advisor: Zsolt Kira) - PhD	expected 2023
Stefan Stojanov (advisor: Jim Rehg) - PhD	expected 2023
Jinsol Lee (advisor: Ghassan AlRegib)- PhD	expected 2023
Joseph Oluwaseun Aribido (advisor: Ghassan AlRegib) - PhD	expected 2023
Luyu Yang (advisor: Abhinav Srivastana) - PhD	July 2022
Samyak Datta (advisor: Devi Parikh) - PhD	July 2022
Supriya Nagesh (advisor: Jim Rehg) - PhD	Sept 2022
Himanshu Sahni (Advisor: Charles Isbell) - PhD	Dec 2021
Steven Hickson (advisor: Irfan Essa) - PhD	Mar 2020
Yen-Chang Hsu (advisor: Zsolt Kira) - PhD	Mar 2020
Ramprasaath Ramasamy Selvaraju (advisor: Devi Parikh) - PhD	Mar 2020
Jiasen Lu (advisor: Devi Parikh) - PhD	Jan 2020
Jianwei Yang (advisor: Devi Parikh) - PhD	Jan 2020

Current Advising

Daniel Bolya (PhD) <i>NSF-GRFP</i>	Aug 2019 - Present
Viraj Prabhu (PhD)	Aug 2019 - Present
Prithvijit Chattopadhyay (PhD) <i>CoC Rising Star Doctoral Research Award</i>	Aug 2019 - Present
George Stoica (PhD) <i>NSF-GRFP</i>	Aug 2021 - Present
Simar Kareer (PhD)	Aug 2022 - Present
Pratik Ramesh (PhD) <i>Herbert P. Haley Fellowship</i>	Jan 2023 - Present
Sriram Yenamandra (MS)	Jan 2022 - Present
Sahil Khose (MS)	Jan 2023 - Present
Anisha Pal (MS)	Jan 2023 - Present
Bharat Goyal (BS/MS)	Jan 2023 - Present
Vivek Vijaykumar (BS)	Aug 2021 - Present
Jakob Bjorner (BS) <i>Presidential Undergraduate Research Award</i>	Aug 2022 - Present
Bogi Ecsedi (BS)	Jan 2023 - Present

Former Advisees

Aayushi Agarwal (MS)	Aug 2021 - May 2023
Aaditya Singh (MS)	Jan 2022 - May 2023
Taylor Hearn (MS)	Jan 2022 - May 2023
Deepanshi Deepanshi (MS)	Aug 2021 - May 2023
Kartik Sarangmath (BS/MS)	Jan 2021 - Dec 2023
Sean Foley (MS, co-advised James Hays)	Aug 2019 - May 2023
Bhavika Devnani (MS) <i>Next: Apple AI</i>	Jan 2021 - Dec 2022
Sruthi Sudhakar (BS) <i>Next: CS PhD Columbia</i>	Aug 2020 - May 2022
<i>NSF GRFP, GT CoC Outstanding Ugrad Research Award</i>	

Deeksha Kartik (MS) <i>Next: PathAI</i>	Aug 2020 - May 2022
Luis Bermudez (MS)	Spring 2021
Rohit Mittapalli (BS) <i>Next: Startup</i>	Jan 2020 - May 2021
Shivam Khare (MS) <i>Next: Twitter AI</i>	Aug 2020 - May 2021
Arvind Krishnakumar (MS)	Jan 2020 - May 2021
Fu Lin (MS) <i>Next: AWS Beijing</i>	Jan 2020 - July 2020
James Hahn (MS)	Spring 2020
Hazel Jian (BS)	Fall 2020

Department Service

School of Interactive Computing Advisory Committee	2021 - 2023
PhD student recruitment coordinator (Georgia Tech)	2020-2021
ML@GT Social Event Coordinator	2020
PhD student recruitment coordinator (Georgia Tech)	2019-2020
Postdoc member of graduate admissions committee (Stanford)	2016
Student member of graduate admissions committee (UC Berkeley)	2013-2015

Editorial Service

Chair Positions:

CVPR Program Committee Chair	2023
<i>1/5 lead organizers for ~10,000 submissions, 400 Area Chairs, 6000 reviewers</i>	
ICCV Tutorial Chair	2023

Associate Editor:

IEEE Transactions on Pattern Analysis and Machine Intelligence (T-PAMI)	2021,2022, 2023
International Journal on Computer Vision (IJCV)	2020,2021,2022

Area Chair / Senior Program Committee:

IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR)	2019, 2020, 2021
Neural Information Processing Systems (NeurIPS)	2021, 2023
International Conference on Learning Representations (ICLR)	2019, 2020
IEEE/CVF International Conference in Computer Vision (ICCV)	2019,2021
International Conference in Machine Learning (ICML)	2020

Reviewer:

IEEE Transactions on Pattern Analysis and Machine Intelligence (T-PAMI)	2013-2017
Journal of Machine Learning Research (JMLR)	2013-2017
IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR)	2014-2018
IEEE/CVF International Conference in Computer Vision (ICCV)	2015,2017,2019
European Conference in Computer Vision (ECCV)	2016,2018,2020
Neural Information Processing Systems (NeurIPS)	2016-2018
International Conference on Learning Representations (ICLR)	2018
International Conference in Machine Learning (ICML)	2017-2019
IEEE International Conference on Robotics and Automation (ICRA)	2014-2019
IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)	2014-2016

CS 4476 Introduction to Computer Vision

Georgia Insitute of Technology

Instructor

CS 8803-LS: Machine Learning with Limited Supervision

Atlanta, GA
August 2022 - December 2022

Georgia Insitute of Technology

Instructor

CS 4476 Introduction to Computer Vision

Atlanta, GA
January 2022 - April 2022

Georgia Insitute of Technology

Instructor

CS 8803-LS: Machine Learning with Limited Supervision

Atlanta, GA
August 2021 - December 2021

Georgia Insitute of Technology

Instructor

CS 4476 Introduction to Computer Vision

Atlanta, GA
January 2021 - April 2021

Georgia Insitute of Technology

Instructor

CS 4476/6476 Introduction to Computer Vision

Atlanta, GA
January 2020 - April 2020

Georgia Insitute of Technology

Instructor

CS 8803-LS: Machine Learning with Limited Supervision

Atlanta, GA
August 2019 - December 2019

University of California Berkeley

Teaching Assistant

CS 188: Introduction to Artificial Intelligence.

Berkeley, CA
January 2013 - May 2013

University of California Berkeley

Teaching Assistant

EE 20N: Introduction to Signals and Systems.

Berkeley, CA
August 2009 - December 2009