

Meera S. Hahn

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Research Interests

I am interested in studying human activity understanding using deep networks as well as exploring how to harness linguistic information to assist in visual learning tasks.

Education

Georgia Institute of Technology

2016 - Present

PhD in Computer Science, School of Interactive Computing
Presidential PhD Fellow of Georgia Institute of Technology
Advisor: James M. Rehg

Emory College of Emory University

2012 - 2016

Bachelor of Science in Computer Science and Mathematics
Major GPA: 3.9/4.00, Summa Cum Laude

Technical Reports & Publications

- “Tripping through time: Efficient Localization of Activities in Videos” **M. Hahn**, A. Kadav, H. Peter Graf. To be submitted to ICCV (2019).
- “Action2Vec: A Crossmodal Embedding Approach to Action Learning” **M. Hahn**, A. Silva, J. M. Rehg. CVPR workshop on Deep Learning (2018). <https://arxiv.org/abs/1901.00484>
- “Learning to Localize and Align Fine-Grained Actions to Sparse Instructions” **M. Hahn**, N. Ruiz, J. Alayrac, I. Laptev, J. M. Rehg. CVPR workshop on Language and Vision (2018). <https://arxiv.org/abs/1809.08381>
- “Situating Bayesian Reasoning Framework for Robots Operating in Diverse Everyday Environments” A. Daruna, V. Chu, W. Liu, **M. Hahn**, P. Khante, S. Chernova, A. Thomaz. Georgia Institute of Technology. Accepted to AAAI 2018 and the International Symposium on Robotics Research (2017). <http://www.rail.gatech.edu/wp-content/uploads/2018/04/ISRR2017.pdf>
- “Advances in Methods and Evaluations for Distributional Semantic Models using Computational Lexicons.” **M. Hahn** and J. Choi. Emory University Honors Thesis (2016). Received Highest Honors. <http://pid.emory.edu/ark:/25593/rj67f>
- “Deep Tracking: Visual Tracking Using Deep Convolutional Networks”. Center for Research in Computer Vision, The University of Central Florida (2015). **M. Hahn**, S. Chen, and A. Deghan. Accepted to Grace Hopper Celebration student poster session and ACM student research competition. <https://arxiv.org/abs/1512.03993>

Academic Honors

- Presidential PhD Fellowship at Georgia Institute of Technology 2016 - 2020
- Highest Honors on Emory Thesis 2016
 - Thesis was on improvements in the Word Embedding system, Advisor was Dr. Jinho Choi
- Emory Honors Program: nominated & selected 2015 - 2016
 - Program involves a written thesis, thesis defense, a GPA above 3.5 and graduate coursework
- Computing Research Association – Women Graduate Workshop travel grant recipient 2017
- Anita Borg Scholarship recipient: travel grant to attend the Grace Hopper Celebration 2015
- Emory Honor List & Emory Merit List 2012 – 2016
- CVPR reviewer 2017 – Present
- ECCV/ICCV reviewer 2018 – Present

Academic Research Experience

Computational Perceptual Laboratory of Georgia Institute of Technology 2016 - Present

Graduate Research Assistant, Advisor: Dr. James M. Rehg

- Working at the intersection of language and vision with the goal of improving activity understanding.
- Working as a part of a NIH funded project to monitor and track the progression of autism through behavioral imaging and wearable sensors.

Visual Intelligence Lab of Georgia Institute of Technology 2018 - Present

Graduate Research Assistant, Advisor: Dr. Devi Parikh and Dr. Peter Anderson

- Working on language guided navigation in 3D environments.

Robot Autonomy and Interactive Learning Lab of Georgia Institute of Technology 2016 - 2017

Graduate Research Assistant, Principle Investigator: Dr. Sonia Chernova

- Worked on developing an object recognition and object grounding system for a robot operating in novel environments.

Natural Language Processing Research Lab of Emory University 2014 - 2016

Research Assistant and Thesis Research, Advisor: Dr. Jinho Choi

- Worked on a novel approach to word embedding that accounted for sentence dependency structure. Used distributional semantics, dependency tree parsing and neural networks. This research was part of an Honor's Program senior thesis.
- Worked on the Emory NLP toolkit's Named Entity Recognition system.

NSF Fellow: Research Experience for Undergraduates, University of Central Florida Summer 2014

REU fellow at Center for Research in Computer Vision, Principle Investigator: Dr. Mubarak Shah

- Designed and implemented the first deep learning based object tracking system. Used a parallel Convolution Neural Networks to handle both appearance and motion of the target. Introduced a novel approach to handling an object scale change using features of the CNN.

Industry Experience

NEC Laboratories America Summer 2018

Research Intern, Principle Investigators: Dr. Asim Kadav and Dr. Hans Peter Graf

- Working on spatio-temporal localization of actions in video from natural language descriptions.

Amazon Fulfillment Technologies Summer 2016

Research and Development Intern, Managers: Dr. Marshall Tappen and Jonathan Dughi

- Developed and deployed a shape classification system.
- Used point cloud images to determine shape of a item and determined if item was in a ship-safe container.

Amazon Supply Chain Optimization Technology Team Summer 2015

Software Development Engineer Intern

- Developed and deployed an AB Testing framework to ensure optimality of new versions of code.

Leadership and Community Engagement

Women in Computing at Emory 2015 - 2016

President and Founder

- This club is a subsidiary of HACK Emory and gives seminars throughout the year on opportunities for Women In Computing, also serves as a place for women in tech at Emory to network.