

## RESEARCH POSITIONS

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**Graduate Research/Teaching Assistant** January 2017 - Present  
Machine Learning and Perception Lab  
at Georgia Institute of Technology with Dhruv Batra

### PAST POSITIONS

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**Research Intern** Summer 2016  
Microsoft Research Cambridge

**Graduate Research Assistant** May 2014 - May 2016; August 2016 - December 2016  
Machine Learning & Perception Group  
at Virginia Tech with Dhruv Batra

**Research Intern** July 2015 to August 2015  
Photokharma  
Research and implement face recognition software

**Intern** June 2012 - December 2012  
IBM, Raleigh, NC  
Intern for Data Analytics Team; Developed machine learning features and data visualizations

## EDUCATION

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**Ph.D., Computer Science – Georgia Tech** Spring 2017 - Present  
Completing in Spring 2020  
GPA (overall): 3.64/4.0

**Ph.D., Electrical and Computer Engineering – Virginia Tech** Fall 2015 - Transferred Spring 2017

**M.S., Computer Science – Virginia Tech** March 2016.  
GPA (overall): 3.74/4.0

**B.S., Computer Science, Honors Scholar – Virginia Tech** December 2013  
GPA (overall): 3.77/4.0    GPA (in major): 3.76/4.0

**B.S., Mathematics, Honors Scholar – Virginia Tech** December 2013  
GPA (overall): 3.77/4.0    GPA (in major): 3.70/4.0

## HONORS & AWARDS

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- **Outstanding Reviewer Awards (Recognition from areas chairs for quality reviewing)**
  - IEEE Conference on Computer Vision and Pattern Recognition (CVPR) 2017, 2019 (in top 25 reviewers)
  - Neural Information Processing Systems (NeurIPS) 2017 - 2018
  - International Conference on Machine Learning (ICML) 2019
  - International Conference on Learning Representations (ICLR) 2019
- **Bradley Fellowship – Virginia Tech ECE** Fall 2015  
Tuition + stipend for 3 years
- **Scholarships**
  - Pratt Engineering Scholarship, \$5000, 2009 - 2010
  - AFCEA NOVA Scholarship, \$4000
  - Gilbert L & Lucille C Seay Scholarship, \$2000, 2010 - 2011
  - Computer Science Resource Consortium Scholarship, \$1500, 2011 - 2012, 2013 - 2014

– **International Science Fair (High School)**

Project Title: Is a Multiply with Carry pseudo random number generator statistically more random than a Combined Linear Congruential pseudo random number generator?

## PUBLICATIONS

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### Peer-Reviewed Conference Papers

1. Ashwin K Vijayakumar, Michael Cogswell, Ramprasath R. Selvaraju, Qing Sun, Stefan Lee, David Crandall, and Dhruv Batra. “Diverse Beam Search: Decoding Diverse Solutions from Neural Sequence Models”. In: *Proceedings of the Association for the Advancement of Artificial Intelligence (AAAI)*. 2018.
2. Stefan Lee, Senthil Purushwalkam, Michael Cogswell, Viresh Ranjan, David Crandall, and Dhruv Batra. “Stochastic Multiple Choice Learning for Training Diverse Deep Ensembles”. In: *NIPS*. 2016. Similar to M Best Heads below.
3. Michael Cogswell, Faruk Ahmed, Ross Girshick, Larry Zitnick, and Dhruv Batra. “Reducing Overfitting in Deep Networks by Decorrelating Representations”. In: *Proceedings of the International Conference on Learning Representations (ICLR)* (2016).
4. Stephen H Edwards, Zalia Shams, Michael Cogswell, and Robert C Senkbeil. “Running students’ software tests against each others’ code: new life for an old gimmick”. In: *Proceedings of the 43rd ACM technical symposium on Computer Science Education*. ACM. 2012, pp. 221–226.

### Journals

5. Ramprasaath R. Selvaraju, Michael Cogswell, Abhishek Das, Ramakrishna Vedantam, Devi Parikh, and Dhruv Batra. “Grad-CAM: Visual Explanations from Deep Networks via Gradient-based Localization”. In: *International Journal of Computer Vision (IJCV) and Proceedings of the International Conference on Computer Vision (ICCV)*. 2019 and 2017.

### Technical Reports

6. Michael Cogswell, Jiasen Lu, Stefan Lee, Devi Parikh, and Dhruv Batra. “Emergence of Compositional Language with Deep Generational Transmission”. In: *CoRR* abs/1904.09067 (2019).
7. Michael Cogswell, Xiao Lin, Senthil Purushwalkam, and Dhruv Batra. “Combining the best of graphical models and convnets for semantic segmentation”. In: *arXiv preprint arXiv:1412.4313* (2014). An earlier version appeared at the CVPR 2014 Scene Understanding Workshop.
8. Stefan Lee, Senthil Purushwalkam, Michael Cogswell, David Crandall, and Dhruv Batra. “Why M Heads are Better than One: Training a Diverse Ensemble of Deep Networks”. In: *arXiv preprint arXiv:1511.06314* (2015).

## SERVICE

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– **Regularly review or serve on the program committee for**

Computer Vision and Pattern Recognition (CVPR)	2015 - 2019
European Conference on Computer Vision (ECCV)	2014, 2016
International Conference on Computer Vision (ICCV)	2015, 2017, 2019
Neural Information Processing Systems (NIPS)	2017 - 2019
International Conference on Learning Representations (ICLR)	2017 - 2019
International Conference on Machine Learning (ICML)	2019