# MICHAEL COGSWELL

mcogswell.io michael.a.cogswell@gmail.com

# EDUCATION

Georgia Tech

Fall 2015 - Spring 2020 (expected)

Ph.D., Computer Science

(transferred from Virginia Tech with advisor in Spring 2017)

Advised by Dhruv Batra

Virginia Tech

March 2016

M.S., Computer Science Advised by Dhruv Batra

Virginia Tech

December 2013

B.S., Computer Science, Honors Scholar B.S., Mathematics, Honors Scholar

Research Positions

Graduate Research/Teaching Assistant

January 2017 - Present

Machine Learning and Perception Lab at Georgia Institute of Technology with Dhruv Batra

PAST POSITIONS

Research Intern Summer 2016

Microsoft Research Cambridge

Research project supervised by Yoram Bachrach involving automated conversational agents

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 supervised by Abner Guzmn-Rivera

Intern June 2012 - December 2012

IBM, Raleigh, NC

Intern for Data Analytics Team; Developed machine learning features and data visualizations

Honors & Awards

- Outstanding Reviewer Awards (Recognition from areas chairs for quality reviewing)

IEEE Conference on Computer Vision and Pattern Recognition (CVPR) 2017, (top 1% of reviewers) 2019

Neural Information Processing Systems (NeurIPS)

2017 - 2019

International Conference on Machine Learning (ICML)

(top 5% of reviewers) 2019

International Conference on Learning Representations (ICLR)

2019 **Fall 2015** 

- Bradley Fellowship - Virginia Tech ECE

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

#### **Pre-Prints**

- 10. Michael Cogswell, Jiasen Lu, Stefan Lee, Devi Parikh, and Dhruv Batra. "Dialog without Dialog: Learning Image-Discriminative DialogPolicies from Single-Shot Question Answering Data". In: (2019).
- 9. 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).

#### **Journals**

8. 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)*. 2019.

### Peer-Reviewed Conference Papers

- 7. 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.
- 6. 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: (2017).
- 5. 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.
- 4. 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).
- 3. 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.

# Technical Reports / Workshops

- 2. 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.
- 1. 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

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 - 2020
International Conference on Machine Learning (ICML)	2019
IEEE Transactions on Multimedia	2019