

Yash Goyal

CONTACT INFORMATION

E-mail: ygoyal@gatech.edu
Webpage: www.computing.ece.vt.edu/~ygoyal

EDUCATION

Georgia Tech, Atlanta, GA, USA **August 2017 - Present**
Ph.D. in Computer Science
Advised by: Dhruv Batra
Research Area: Deep Learning, Language & Vision

Virginia Tech, Blacksburg, VA, USA **August 2014 - May 2017**
Ph.D. in Computer Engineering
Advised by: Dhruv Batra
Transferred to Georgia Tech with my advisor

Indian Institute of Technology Gandhinagar, Gujarat, India **July 2010 - May 2014**
Bachelor of Technology (B. Tech.) in Electrical Engineering
with Honors, and Minor in Computer Science and Engineering
CPI: 9.33/10

CONFERENCE AND WORKSHOP PUBLICATIONS

Gordon Christie*, Ankit Laddha*, Aishwarya Agrawal, Stanislaw Antol, Yash Goyal, Kevin Kocherberger, Dhruv Batra.
Resolving Language and Vision Ambiguities Together: Joint Segmentation & Prepositional Attachment Resolution in Captioned Scenes.
Journal of Computer Vision and Image Understanding (CVIU), 2017
<https://arxiv.org/abs/1604.02125>
*equal contribution

Yash Goyal*, Tejas Khot*, Douglas Summers-Stay, Dhruv Batra, Devi Parikh.
Making the V in VQA Matter: Elevating the Role of Image Understanding in Visual Question Answering.
Conference on Computer Vision and Pattern Recognition (CVPR), 2017
<https://arxiv.org/abs/1612.00837>
*equal contribution

Gordon Christie*, Ankit Laddha*, Aishwarya Agrawal, Stanislaw Antol, Yash Goyal, Kevin Kocherberger, Dhruv Batra.
Resolving Language and Vision Ambiguities Together: Joint Segmentation & Prepositional Attachment Resolution in Captioned Scenes.
Conference on Empirical Methods in Natural Language Processing (EMNLP), 2016;
<https://arxiv.org/abs/1604.02125>
*equal contribution

Yash Goyal, Akrit Mohapatra, Devi Parikh, Dhruv Batra.
Interpreting Visual Question Answering Models.
International Conference on Machine Learning (ICML) Workshop on Visualization for Deep Learning, 2016. (**Best Student Paper**)
<https://arxiv.org/abs/1608.08974>

Peng Zhang*, Yash Goyal*, Douglas Summers-Stay, Dhruv Batra, Devi Parikh.
Yin and Yang: Balancing and Answering Binary Visual Questions.
Conference on Computer Vision and Pattern Recognition (CVPR), 2016
<https://arxiv.org/abs/1511.05099>
*equal contribution

Harsh Agrawal, Clint Solomon Mathialagan, Yash Goyal, Neelima Chavali, Prakriti Banik, Akrit Mohapatra, Ahmed Osman, Dhruv Batra.

CloudCV: Large-Scale Distributed Computer Vision as a Cloud Service.

Book Chapter, *Mobile Cloud Visual Media Computing*. Editors: Gang Hua, Xian-Sheng Hua. Springer, 2015

<https://arxiv.org/abs/1506.04130>

Yash Goyal, Harsh Agrawal, Clint Solomon, Dhruv Batra.

CloudCV: Fast Addition of New Classes to a Pre-trained ConvNet.

Mid-Atlantic Computer Vision (MACV) Workshop, 2015.

Deepesh Kumar, Yash Goyal, Sunil Nair, Arvind Chauhan, Uttama Lahiri.

Design of a physiologically informed virtual reality based interactive platform for individuals with upper limb impairment.

IEEE International System on Robot and Human Interactive Communication (Ro-MAN 2014), UK.

INTERNSHIPS

Research Intern, Spring & Summer 2017

Facebook AI Research, Menlo Park, CA, USA

Mentors: Dhruv Batra, Anitha Kannan, Devi Parikh

- Developed a generative model for image layout generation.
- Designed a conditional generative model to generate images conditioned on image layout.

Visiting Scholar, Summer 2015

Army Research Lab, Adelphi, MD, USA

Supervisor: Douglas Summers-Stay

- Worked on developing visual question answering models for abstract scenes.
- Designed image features for abstract scenes for visual question answering.

Visiting Scholar, Summer 2013

Duke University, Durham, NC, USA

Supervisor: Prof. Krishnendu Chakrabarty

- Simulated a capacitive sensing circuit for detecting presence of microfluidic droplets on digital biochips on LTSPICE.

Engineering Intern, Summer 2012

GridAnt Technologies, Ahmedabad, India

- Worked on accumulation of real-time data from Facebook for natural language processing using Facebook graph API platform.

SIGNIFICANT ACTIVITIES

- Co-lead organizer of VQA Challenge 2017.
- Co-organizer of VQA Challenge Workshop at CVPR 2017.
- Co-organizer of VQA Challenge workshop at CVPR 2016.
- Reviewer for CVPR, NIPS, ICCV, ECCV, ICLR.
- Graduate Teaching Assistant, Virginia Tech.

HONORS AND AWARDS

- Best Student Paper, Workshop on Visualization for Deep Learning, ICML 2016.
- Registration Fee Waiver Award, Deep Learning Summer School 2016, Montreal, Canada.
- Dean's List for 7 semesters, IIT Gandhinagar.
- S.P. Mehrotra scholarship, 2011-12, IIT Gandhinagar.
- Merit-cum-Means scholarship, 2010-11, 2012-14, IIT Gandhinagar.

RELEVANT
COURSEWORK

Graduate: Advanced Computer Vision, Computer Vision, Deep Learning for Perception, Intro to Machine Learning, Math Foundations in Machine Learning, Data Analytics, Intro to Artificial Intelligence, Algorithms.

Undergraduate: 3D Computer Vision, Fundamentals of Artificial Neural Networks, Intro to Python and Scientific Computing, Artificial Intelligence, Markov Chains and Queueing Models, Intro to Optimization, Probability and Random Processes, Intro to Computational Complexity Theory.

TECHNICAL SKILLS

Programming Languages: Python, Lua, MATLAB, C/C++

Libraries: Torch, Caffe, Keras, OpenCV, Vizard

Human Computation: Amazon Mechanical Turk