

WORK EXPERIENCE

Research Scientist 2020 - Present
Samsung Advanced Institute of Technology (SAIT) AI Lab, Montreal, Quebec, Canada

EDUCATION

Ph.D. in Computer Science 2017 - 2020
Georgia Tech, Atlanta, GA, USA
Advised by: Dhruv Batra

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

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

HONORS AND AWARDS

- Outstanding Reviewer, ICLR 2021
- Outstanding Reviewer, CVPR 2019
- Outstanding Reviewer, CVPR 2018
- Best Student Paper, Workshop on Visualization for Deep Learning, ICML 2016
(Awarded for *Towards Transparent AI Systems: Interpreting Visual Question Answering Models*)
- Registration Fee Waiver Award, Deep Learning Summer School, Montreal, Canada 2016
- Dean's List for academic excellence, IIT Gandhinagar 2011, 2012, 2013, 2014
- S.P. Mehrotra scholarship, IIT Gandhinagar 2011-12
- Merit-cum-Means scholarship, IIT Gandhinagar 2010-11, 2012-13, 2013-14

PUBLICATIONS [\[Google Scholar\]](#)[\[arXiv\]](#)

- Benno Krojer, Vaibhav Adlakha, Vibhav Vineet, [Yash Goyal](#), Edoardo Ponti, Siva Reddy. “[Image Retrieval from Contextual Descriptions](#)”, *Association for Computational Linguistics (ACL)*, 2022.
- William Ferguson, Dhruv Batra, Raymond Mooney, Devi Parikh, Antonio Torralba, David Bau, David Diller, Josh Fasching, Jaden Fiotto-Kaufman, [Yash Goyal](#), Jeff Miller, Kerry Moffitt, Alex Montes de Oca, Ramprasaath R Selvaraju, Ayush Shrivastava, Jialin Wu, Stefan Lee. “[Reframing explanation as an interactive medium: The EQUAS \(Explainable Question Answering System\) project](#)”, *Applied AI Letters*, 2021.
- [Yash Goyal](#), Amir Feder, Uri Shalit, Been Kim. “[Explaining Classifiers with Causal Concept Effect \(CaCE\)](#)”, *ArXiv*, 2019.
- [Yash Goyal](#), Ziyang Wu, Jan Ernst, Dhruv Batra, Devi Parikh, Stefan Lee. “[Counterfactual Visual Explanations](#)”, *International Conference on Machine Learning (ICML)*, 2019.
- [Yash Goyal](#), Tejas Khot, Aishwarya Agrawal, Douglas Summers-Stay, Dhruv Batra, Devi Parikh. “[Making the V in VQA Matter: Elevating the Role of Image Understanding in Visual Question Answering](#)”, *International Journal of Computer Vision (IJCV)*, 2018.
- Gordon Christie*, Ankit Laddha*, Aishwarya Agrawal, Stanislaw Antol, [Yash Goyal](#), Kevin Kochersberger, 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.
*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.
*equal contribution
- Gordon Christie*, Ankit Laddha*, Aishwarya Agrawal, Stanislaw Antol, [Yash Goyal](#), Kevin Kochersberger, 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.
*equal contribution
- [Yash Goyal](#), Akrit Mohapatra, Devi Parikh, Dhruv Batra. “[Towards Transparent AI Systems: Interpreting Visual Question Answering Models](#)”, *International Conference on Machine Learning (ICML) Workshop on Visualization for Deep Learning (Best Student Paper)*, 2016.
- 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.
*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.

- [Yash Goyal](#), Harsh Agrawal, Clint Solomon, Dhruv Batra. "[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.

TALKS

- "Counterfactual Visual Explanations", *International Conference on Machine Learning (ICML)*, 2019. [[Video](#) (1:04:00 - 1:08:25)]
- "Counterfactual Visual Explanations", *Human In the Loop Learning (HILL) Workshop, ICML*, 2019. [[Video](#) (34:09 - 38:38)]
- "Counterfactual Visual Explanations", *Explainable AI Workshop, CVPR*, 2019.
- "The Visual Question Answering Challenge", *Special Session: Workshop Competitions, CVPR*, 2018. [[Video](#) (1:06:29 - 1:11:40)]
- "Visual Question Answering Challenge 2018: Overview of Challenge, Winner Announcements, and Analysis of Results", *VQA Challenge and Visual Dialog Workshop, CVPR*, 2018. [[Video](#)]
- "Visual Question Answering Challenge 2017: Overview of Dataset, Challenge, Winner Announcements, and Analysis of Results", *VQA Challenge Workshop, CVPR*, 2017. [[Video](#) (38:38 - 47:12)]
- "Towards Transparent Visual Question Answering Systems", *Visualization for Deep Learning Workshop, ICML*, 2016. [[Video](#)]
- "Yin and Yang: Balancing and Answering Binary Visual Questions", *Mid-Atlantic Computer Vision (MACV) Workshop*, 2016.

RESEARCH INTERSHIPS

Google Brain, Mountain View, CA, USA

Spring & Summer 2019

Mentors: Been Kim, Uri Shalit

Facebook AI Research, Menlo Park, CA, USA

Spring & Summer 2017

Mentors: Dhruv Batra, Anitha Kannan, Devi Parikh

Army Research Lab, Adelphi, MD, USA

Summer 2015

Mentor: Douglas Summers-Stay

SIGNIFICANT ACADEMIC ACTIVITIES

- Reviewer for CVPR, NeurIPS, ICCV, ECCV, ICLR, ICML, TPAMI, ACM TOMM.
- Co-organizer of the Visual Question Answering Challenge 2017-2021.
- Co-organizer of the Visual Question Answering Workshop at CVPR 2016-2019.
- Co-mentor of Jingjing Pan (MS Student, Georgia Tech; now MSCV Student at CMU), 2018.