

Samir Yitzhak Gadre

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Research Interests

Embodied Vision, Self-supervised Learning, Scaling Robot Learning

Education

- Sept 2020–Present **Columbia University**, Computer Science Ph.D. Candidate, *GPA*: 4.04, *Advisor*: Professor Shuran Song
- Sept 2014–May 2018 **Brown University**, Computer Science Sc.B. w/ Honors, *CS GPA*: 3.94, *Thesis*: Teaching Robots Using Mixed Reality. [\[pdf\]](#) [\[video\]](#)

Awards & Grants

- Sept 2020–Present **Presidential Fellowship**, Columbia University
- May 2018 **Sigma Xi Honors Society Inductee**, Brown University
- June 2016 **Undergraduate Teaching and Research Award**, Brown University

Publications

- ICCV 2021 *Act the Part: Learning Interaction Strategies for Articulated Object Part Discovery*. Samir Yitzhak Gadre, Kiana Ehsani, & Shuran Song. [\[pdf\]](#) [\[website w/ demo\]](#)
- ICRA 2019 *End-User Robot Programming Using Mixed Reality*. Samir Yitzhak Gadre, Eric Rosen, Gary Chien, Elizabeth Phillips, Stefanie Tellex, & George Konidaris. [\[pdf\]](#) [\[video\]](#)

Research Experience

- Sept 2020–Present **Columbia University**, Graduate Researcher
Advisor: Professor Shuran Song
Investigating ways in which interaction and embodiment can complement modern empirical deep learning.
- June 2021–Present **Allen Institute for Artificial Intelligence (AI2)**, Research Intern
Advisors: Professor Roozbeh Mottaghi & Dr. Kiana Ehsani
Working on learning scene representations to support a wide range of downstream embodied and vision tasks.
- Sept 2017–July 2018 **Brown University**, Robotics Researcher & Honors Candidate
Advisors: Professors George Konidaris & Stefanie Tellex
Investigated Augmented Reality interfaces to allow novice users to use holograms to program and teach robots.

May–Aug 2016 **Brown University**, Computer Vision Researcher
Advisor: Professor Benjamin Kimia
Worked on visual odometry and camera pose estimation.

Industry Experience

Feb 2019–Aug 2020 **Microsoft HoloLens**, Software Engineer II
Manager: Dr. Harpreet Sawhney
Worked on object detection and 6DoF object pose estimation for recently launched **Azure Object Anchors**.

Teaching Experience

Jan–May 2021 **Robot Learning**, Columbia University, Graduate TA
Sept–Dec 2020 **Computational Robotics**, Columbia University, Graduate TA
Jan–May 2018 **Algorithms & Data Structures**, Brown University, TA
Sept–Dec 2016 **Object Oriented Programming**, Brown University, TA

Invited Talks

Oct 2018 **University of Washington Robotics Colloquium**, Speaker
Gave talk titled **Virtual and Mixed Reality Interfaces for Human-Robot Interaction**, which addressed the design and implementation of such interfaces.

Service

Sept 2021–Present **Columbia Pre-submission Application Review (PAR)**, Co-Organizer
In charge of outreach efforts with a focus on recruiting underrepresented applicants.
Fall 2020 **Columbia Pre-submission Application Review (PAR)**, Reader
Provided comments on statement of purpose materials submitted by students intending to apply for Ph.D. admission.
Sept 2020–Present **Columbia WiCS**, Mentor
Meet weekly with mentee to provide academic advise and help prepare for internship interviews.
July 2020 **European Conference on Computer Vision (ECCV)**, Reviewer
June 2020–Aug 2020 **Microsoft HoloLens Intern Co-Mentor**, Research Mentor
Provided technical mentorship for a then incoming Princeton PhD student.
Sept 2014–May 2016 **Outdoor Leadership and Environmental Education**, Mentor
Mentored 3-5 high school students per year on topics related to college admissions and internships. Taught science workshops and led field trips.