

# Siddhartha Banerjee

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## EDUCATION

### GEORGIA INST. OF TECH.

#### PH.D. IN ROBOTICS

May 2021 | Atlanta, GA

Title: Facilitating Reliable Autonomy with Human-Robot Interaction

Advised by Dr. Sonia Chernova

### YALE UNIVERSITY

#### B.S. IN ELECTRICAL

#### ENGINEERING/COMPUTER SCIENCE

May 2013 | New Haven, CT

Distinction in Major

GPA: 3.7 / 4.0

## LINKS

Github:// [banerjs](#)

LinkedIn:// [banerjs](#)

## COURSEWORK

### GRADUATE

Artificial Intelligence (Student & TA)

Deep Learning

Linear Systems & Control

Nonlinear Systems

Human-Robot Interaction (Student & TA)

Human-Computer Interaction

Evaluation of Human Integrated Systems

### UNDERGRADUATE

Intro to VLSI System Design

Systems & Control

Science of Complex Systems

Systems Programming

Design & Analysis of Algorithms

Intelligent Robotics

Computational Vision

Database Systems

Mobile Computing & Wireless Networks

## PROGRAMMING

### LANGUAGES

Python • C++ • C • Java • C#

MATLAB • Javascript • R • SQL

### FRAMEWORKS

ROS • PyTorch • scikit-learn • Jupyter

ReactJS • NextJS • NestJS • Django

Docker • Ansible • Terraform

gRPC • SocketIO • WebRTC (basic)

## WORK EXPERIENCE

### DILIGENT ROBOTICS | LEAD ROBOTICS SOFTWARE ENGINEER

May 2018 - August 2018, January 2021 - December 2024 | Austin, TX

- Led Remote Operations development team; headed regular architecture reviews with the CTO; and contributed across the stack
- Scaled remote operations from a fleet of 1-3 robots to a fleet of >100 robots across multiple client sites
- Updated ops tooling to support increased autonomy in the fleet over time
- Developed robot behaviours; integrated new systems, vendors, and hardware; assisted client implementations, particularly w.r.t. networking; and maintained the robot's task scheduler and executor

### MICROSOFT | RESEARCH INTERN

May 2017 - August 2017 | Seattle, WA

- Worked with Situated Interaction Group
- Setup a robot for in-the-wild activity recognition, with a focus on learning from human-robot interaction

### REDFIN | SOFTWARE ENGINEER II

July 2013 - June 2015 | Seattle, WA

- Designed and maintained ETL pipeline for house listing data
- Integrated 3rd party GIS data
- Calculated and displayed aggregate housing data for regions
- Maintained internal tools for managing agents and locations

## AWARDS & LEADERSHIP

2019	Panel Chair	HRI Pioneers Workshop
2017-2018	President	Georgia Tech RoboGrads
2014	Employee of Quarter	Redfin
2011	Fellow	Yale Entrepreneurial Institute Summer Fellowship
2011-2012	Vice-President	Yale Formula Hybrid FSAE Team

## NOTABLE PUBLICATIONS

- [1] S. Banerjee, A. Silva, and S. Chernova, "Robot classification of human interruptibility and a study of its effects," *ACM Trans. on Human-Robot Interaction (THRI)*, vol. 7, no. 2, p. 14, 2018.
- [2] D. Das, S. Banerjee, and S. Chernova, "Explainable ai for robot failures: Generating explanations that improve user assistance in fault recovery," in *Proc. Int. Conf. on Human-Robot Interaction (HRI)*, 2021.

## SELECT PROJECTS

### FETCHIT! CHALLENGE | ROBOTICS COMPETITION

Summer 2019 | ICRA

Developed robot software to complete a mobile manipulation challenge at the ICRA 2019 FetchIt! Challenge hosted by Fetch Robotics. The team placed first, winning a Fetch mobile manipulator robot.

### YALE FORMULA HYBRID FSAE | STUDENT ORGANIZATION

2009 - 2013 | Yale

Designed and built formula style gas-electric hybrid cars to compete nationally. Team won several awards including Best Hybrid Car (2013), Ford Efficiency (2013), Chrysler Innovation (2013), & GM Best Engineered Hybrid System (2010, 2013)