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; 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)