

Rajat Mehndiratta

GITHUB rajatscode **LINKEDIN** /in/rajatsprofile **WEBSITE** rajats.site **E-MAIL** r@jats.email **LATEST RESUME** rajatsresu.me

Skills	Languages: Python, Java, C, JavaScript, MATLAB, SystemVerilog Libraries: Flask, Guava, React Native Tools: bash, vim, git, hg, CI/CD, Agile workflow, L ^A T _E X	
Experience	Software Engineer Robinhood Helping democratize finance for all!	July 2021 - present
	Software Engineer Google > Unified Fulfillment Optimization > Fleet Transformation Enhanced Java backend for mixed-integer programming solver web microservice to optimally plan Google infrastructure deployments (e.g., which machines to add/upgrade to meet compute demand). + Launched recurring automated jobs to detect and re-plan no-longer-viable solutions, increasing granularity and touchlessness while reducing lead time variance. + Designed and delivered API to plan with counterfactuals, increasing on-time fulfillment and reducing manual intervention rate for planning changes and execution problems.	June 2019 - July 2021
	Software Development Engineer Intern Amazon.com > Supply Chain Optimization Technologies > Topline Forecasting Investigated and implemented serverless solutions to reduce forecasting compute costs by 10-100x. + Designed workflow schema and implemented Python-based orchestrator to operate forecasting flows on AWS serverless platform, for use by economists and engineers. + Generated 150+ pages of documentation covering several viable serverless architecture options.	May - August 2018
	Software Development Engineer Intern Amazon > Worldwide Operations > Robotics Explored and validated deep reinforcement learning approaches for visual navigation in a sidewalk delivery robot (Amazon Scout). + Drove effort to generate training data from realistic commercial virtual 3D environments. + Built simulation and testing environment for Nav A3C visual navigation agent. + Contributed to TensorFlow/sonnet-based implementation and devised performance metrics.	May - August 2017
Education	Carnegie Mellon University Bachelor of Science, Electrical and Computer Engineering Coursework: Advanced Mobile Robot Development (16-865), Advanced Digital Signal Processing (18-792), Introduction to Machine Learning (10-601), Rapid Prototyping of Computer Systems (18-540), Introduction to Computer Architecture (18-447), Natural Language Processing (11-411), Neural Technology: Sensing & Stimulation (18-412), Logic Design and Verification (18-341) Involvements: hackathons (competitor, mentor, organizer, and sponsor), Mock Trial (Captain), SDC Buggy (carbon-fiber gravity racing; Mechanic), End The Rain (umbrella dispensers; Co-Founder, Tech Lead)	May 2019
Projects	Nemosi (18-540 Class Capstone) Chief Architect, Wireless Networking Lead Drove architecture and wireless networking design for prototype system to help Alzheimer's patients.	January - May 2019
	SCOT-T Lunar Rover (16-865 / CMU+Astrobotic Lunar X Prize Project) Engineer on Communications, Hardware, and UI Teams Worked on development and testing of UDP-based communications for novel 4.5kg Cube Rover standard.	January - May 2016
	FifthSense (PennApps Fall 2015 Grand Prize) Hackathon Competitor Built full-duplex handheld device to allow blind users to access smartphones in mobile contexts.	September 6-8, 2015