

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	<p>Software Engineer Plaid > Internal Platform > Core Services > Abstractions</p> <p>Prioritized correctness, reliability, and velocity in data modeling and storage for core systems in Go. + Owned project to resolve scaling limit, extending company storage runway from 2022Q1 to late 2020's. + Designed and built verification to help detect and manage 100MM's of obsolete user connections. + Led component efforts for infrastructure cost reduction (\$45k/mo) and incident management.</p> <p>Software Engineer Google > Tech Infra > Unified Fulfillment Optimization > Fleet Transformation</p> <p>Enhanced Java backend for mixed-integer programming solver microservice to plan datacenters. + 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.</p> <p>Software Development Engineer Intern Amazon > Supply Chain Optimization Technologies > Topline Forecasting</p> <p>Investigated and implemented serverless solutions to reduce forecasting compute costs by 10-100x. + Designed and implemented Python workflow orchestrator to operate serverless forecasting on AWS. + Generated 150+ pages of documentation covering several viable serverless architecture options.</p> <p>Software Development Engineer Intern Amazon > Worldwide Operations > Robotics</p> <p>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.</p>	<p>August 2021 - present</p> <p>June 2019 - July 2021</p> <p>May - August 2018</p> <p>May - August 2017</p>
Education	<p>Carnegie Mellon University Bachelor of Science, Electrical and Computer Engineering</p> <p>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)</p> <p>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)</p>	May 2019
Projects	<p>Nemosi (18-540 Class Capstone) Chief Architect, Wireless Networking Lead</p> <p>Drove architecture and wireless networking design for prototype system to help Alzheimer's patients.</p> <p>SCOT-T Lunar Rover (16-865 / CMU+Astrobotic Lunar X Prize Project) Engineer on Communications, Hardware, and UI Teams</p> <p>Worked on development and testing of UDP-based communications for novel 4.5kg Cube Rover standard.</p> <p>FifthSense (PennApps Fall 2015 Grand Prize) Hackathon Competitor</p> <p>Built full-duplex handheld device to allow blind users to access smartphones in mobile contexts.</p>	<p>January - May 2019</p> <p>January - May 2016</p> <p>September 6-8, 2015</p>