Rajat Mehndiratta

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

Skills

Languages: Python, Go, Java
Frameworks: gRPC, Flask, React, Bulma
Tools: bash, vim, git, Mongo, LaTeX

Experience

Software Engineer August 2021 - present
Plaid > Internal Platform > Core Services > Abstractions

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 response speedup.

Software Engineer June 2019 - July 2021
Google > Tech Infra > Unified Fulfillment Optimization > Fleet Transformation

Enhanced Java backend for mixed-integer programming solver microservice to plan datacenters, focused on reducing lead time variance and increasing planning granularity and touchless automation.
+ Launched recurring automated jobs to detect and re-plan no-longer-viable solutions.
+ Designed and delivered API to plan with counterfactuals, increasing on-time fulfillment and reducing need for manual intervention for planning-time changes and execution-time obstacles.

Software Development Engineer Intern May - August 2018
Amazon > Supply Chain Optimization Technologies > Topline Forecasting

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.

Software Development Engineer Intern May - August 2017
Amazon > Worldwide Operations > Robotics

Validated deep reinforcement learning for visual navigation in sidewalk delivery (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.

Education

Carnegie Mellon University May 2019
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)

Projects

Nemosi (18-540 Class Capstone) January - May 2019
Chief Architect, Wireless Networking Lead

Drove architecture and wireless networking design for prototype system to help Alzheimer's patients.

SCOT-T Lunar Rover (16-865 / CMU+Astrobotic Lunar X Prize Project) January - May 2016
Engineer on Communications, Hardware, and UI Teams

Worked on development and testing of UDP-based communications for novel 4.5kg Cube Rover standard.

FifthSense (PennApps Fall 2015 Grand Prize) September 6-8, 2015
Hackathon Competitor

Built full-duplex handheld device to allow blind users to access smartphones in mobile contexts.