

ABHISHEK RAO

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PROFESSIONAL EXPERIENCE

PayPal – Credit Receivables Platform
Software Engineer, Backend

Jan 2026 - Present
Scottsdale, AZ

- Backend for the platform that sells **hundreds of millions** in BNPL and credit card loans to institutional investors **every week**, through forward-flow and securitization programs of up to **EUR 65B**.
- Moved loan selection from Java into **BigQuery SQL**: co-led the weekly batch job migration (~1 hour to ~45 seconds, validated side by side, now in production), then designed the selection logic for a new credit card program using window-function running totals to fill each deal's target amount.
- Designed and built an in-process test framework that runs full **Spring Batch** jobs with zero network calls by intercepting BigQuery and file-store I/O: 100 to **1,000+ scenarios in ~1 minute**, CI from **2-3 hours to 30 minutes**.
- Own alerting and reconciliation for loan sales across **50+ live alert scripts**; designed a config-driven framework that consolidates their duplicated logic into one system for every investor, moving them onto it in stages.
- Self-initiated an internal analytics hub with a **text-to-SQL LLM assistant**; its SQL gateway, a Python package that reaches data behind network restrictions, was adopted by a senior staff engineer.
- Built a **Claude Code multi-agent system** (6+ agents, used by a few teammates) with tool access to GitHub, BigQuery, scheduler logs and Jira: bug-finding reviewers (correctness, security) checked by a critic agent, agents that resolve review feedback, and a support agent that investigates failed runs and proposes a tested fix for approval.

PayPal
Software Engineer Intern, Backend

May 2025 - Aug 2025
Scottsdale, AZ

- Built a complete **Spring Batch** pipeline to tackle a data-mismatch backlog costing **\$75K/month** in BigQuery compute, syncing **6.5M accounts** into BigQuery and cutting ~90% of manual SQL fixes; idempotent, multi-threaded, with bounded retries and an audit table for every failed record. The team adopted its design for production.

Pure Storage – Engineering Productivity
Member of Technical Staff 2 → 3 (promoted)

Jul 2022 - Jul 2024
Bengaluru, India

- Designed and led **Auto Sim Rehab**, an event-driven system that automatically repairs failed test environments across **2,000+ testbeds** (~9,000 VMs), cutting **MTTR from over 5 hours to ~10 minutes**: failure events on RabbitMQ trigger **Temporal** workflows within seconds, throttled by a custom **Redis distributed semaphore**; availability held above 95%. Drove promotion to MTS-3; later mentored the intern who took over its ownership.
- Led the **release gate** for every VM image on Jenkins: each build is booted, health-checked and smoke-tested before it can ship, catching several breaking OS changes before they reached the fleet. Demoed to the CTO.
- Built a **desired-state inventory system** for Pure's private cloud: a Nautobot plugin (Python, Django, NAPALM) that discovers every switch and host and flags drift, raising accuracy from ~60% to **99%**.
- Led the simulator image upgrade from Ubuntu 14 to 22 with parallel batch deployments (deployment time down 90%); with one teammate, took over the shared test framework as interim owners after its team was laid off.

Pluribus Networks (acquired by Arista)
Software Intern

Jan 2022 - Jun 2022
Bengaluru, India

- Built CLI2API, turning switch CLI commands into REST calls (data fetch 135s to 15s, demoed to a VP), and rule-based auto-triage of weekly Jenkins regressions (~1 hour to ~5 minutes, adopted by the team); proposed and built a Perl-to-Python transpiler (PLY) to migrate the legacy test suite.

PROJECTS

- KapLabs Auth** (Go, gRPC, MySQL) | Multi-tenant identity and authorization platform with a Zanzibar-style ReBAC engine: two gRPC services, 45 RPCs, an HTTP/JSON gateway sharing the same handlers, rotating refresh tokens; serves a live app.
- Platr** (TypeScript, Next.js, SQLite, MCP) | Self-hosted, multi-user meal-planning app: cooks from the soonest-expiring stock first, predicts pantry run-out as a range from consumption variance, plans the shopping run across stores. Includes a read-only **MCP server** giving Claude seven tools.
- DSA Panicle** (Python, Pyodide, React) | Interactive algorithms reference that traces real Python in the browser and animates it. Built with an agentic dev system: a vision-model judge checks each animation for faithfulness and auto-fixes until it passes; test gates run through cheap-model subagents.

EDUCATION

North Carolina State University – M.S. Computer Science

GPA 4.0/4.0

Aug 2024 - Dec 2025

PES University – B.Tech Computer Science

CGPA 8.65/10, First Class with Distinction

Aug 2018 - May 2022

First author, [IEEE CONECCT 2022](#) (5G deployment via multi-objective genetic algorithm).

TECHNICAL SKILLS

Languages: Python, Go, Java, SQL, TypeScript, C

Backend & data: Spring Boot, Spring Batch, gRPC, REST, BigQuery, PostgreSQL, MySQL, SQLite, Redis, RabbitMQ

Platform: Temporal, GCP (Cloud Run, GKE), Docker, Nomad, Consul, Jenkins, GitHub Actions, Packer, Ansible, Prometheus

AI: Claude Code, multi-agent systems, Model Context Protocol (MCP), LLM tool use, text-to-SQL