

MANAV SANDEEP MALAVIA

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WORK EXPERIENCE

Software Engineer | PittBos (Construction Tech Startup) | Boston, MA

Aug 2025 – Present

- Delivered 1–2 contractor-facing updates weekly using **React**, **TypeScript**, and **REST APIs**, turning unclear construction workflows into reliable product features that improved daily contractor operations and adoption.
- Modernized core workflows into **Go microservices** with **PostgreSQL**, **MongoDB**, and **Redis**, reducing monolith complexity while improving scalability, service ownership, release flexibility, and long-term maintainability.
- Secured 100+ contractor and supplier accounts by building authentication with **OAuth2**, **JWT**, and **AWS Cognito**, improving access control, session reliability, and security across production workflows.
- Operated production infrastructure on **AWS** with **Docker**, **NGINX**, **GitLab CI/CD**, and **Sentry**, making releases more consistent, traceable, observable, and easier to debug across environments.
- Automated billing, notifications, and document workflows through **Twilio**, **Stripe**, and **Microsoft Graph APIs**, reducing manual contractor operations, support follow-ups, and repetitive back-office work.
- Improved engineering productivity using **Cursor AI** and **Claude Code** for debugging, implementation planning, and code review prep while adding **Cypress** and **Playwright** coverage across 5 product surfaces.

Software Engineer | Allthenticate (Cybersecurity Startup) | Houston, TX

Jun 2024 – Jul 2025

- Built passwordless authentication features in **Flask** with real-time **Socket.IO** updates, improving login visibility, session handling, distributed authentication flows, and admin-facing activity tracking.
- Modernized deployment workflows using **Terraform**, **AWS EKS**, **Docker**, **Helm**, **Argo CD**, **GitLab CI/CD**, and **Kubernetes**, improving release consistency, rollback safety, and environment reproducibility.
- Accelerated CI/CD pipeline execution by 20% by moving from shell runners to **Docker executors**, implementing **Docker-in-Docker**, layer caching, and parallel **GitLab CI/CD** jobs.
- Offloaded slow backend jobs to **Celery** workers backed by **Redis** and **AWS ElastiCache**, keeping user-facing requests lightweight while supporting asynchronous processing and background task reliability.
- Expanded observability with **Prometheus**, **Grafana**, and **Alertmanager**, making latency, failures, service health, production behavior, and operational trends easier to monitor.
- Engineered macOS build infrastructure using **Anka** on Mac nodes with **Xcode**, **Fastlane**, and **Shorebird**, while stabilizing **NGINX**, **gevent**, Linux servers, and **Swagger/OpenAPI** workflows.

Software Engineer | Northeastern University (Access Control Systems) | Boston, MA

Jan 2024 – Dec 2024

- Enhanced legacy campus systems in **Java**, **Spring Boot**, **SQL**, and **JavaScript**, improving user, role, permission, and access-record workflows while making internal access operations easier to maintain and review.
- Updated 20+ internal web screens using **HTML**, **CSS**, and **JavaScript**, improving form usability, navigation flow, request review speed, and staff-facing access-management workflows.
- Automated data validation and reporting workflows with **Python**, **Pandas**, **NumPy**, and **SQL**, reducing manual checks while improving consistency across badge, user, and access-review datasets.
- Built 20+ **Tableau** dashboards and optimized recurring **SQL** queries, helping teams track exceptions, monitor trends, review access issues faster, and reduce repeated investigation work.

PROJECTS

DebugPilot – AI-Powered DevOps Incident Debugger (Github)

- Built an **AIOps** debugger that ingests **Kubernetes**, **Terraform**, and **CI** logs and returns root-cause diagnoses with fix steps using **FastAPI**, **React**, **Claude API**, and runbook-grounded **RAG**.
- Deployed across **AWS EKS** and **GCP GKE** with **Terraform**, **Helm**, **Argo CD**, and DNS failover — with an event-driven **Kafka** and **GitHub webhook** pipeline, **Redis** caching, and **GitHub Actions** CI/CD so the system updates without manual steps.

TECHNICAL SKILLS

Languages:	Python, TypeScript, JavaScript, Go, Java, C#/.NET, SQL, Bash, HTML, CSS.
Frontend & Backend:	React, FastAPI, Flask, Django, Node.js, REST APIs, WebSocket, microservices, Swagger/OpenAPI.
Databases:	PostgreSQL, MongoDB, MySQL, Redis.
Data & Messaging:	Celery, Kafka, data pipelines, async processing, query optimization.
Cloud & Infrastructure:	AWS, GCP, Azure, Docker, Kubernetes, Terraform, Helm, Argo CD, GitHub Actions, GitLab CI/CD, Linux.
Tools & Methods:	Prometheus, Grafana, Sentry, CloudWatch, NGINX, Git, Playwright, Jira, Cursor AI, Claude Code.

EDUCATION

Northeastern University | MS Computer Engineering, GPA: 3.8 / 4.0

University of Mumbai | BS Information Technology, GPA: 3.5 / 4.0

Boston, MA | Sep 2022 – May 2024

Mumbai, India | Aug 2018 – Jun 2022