

Nagarjun Mallesh

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SUMMARY

Software Engineer with 4+ years of experience building **backend, cloud, automation, and AI-enabled** systems across startup and enterprise environments. Strong in **Python, TypeScript, AWS, Terraform, Docker, FastAPI, Node.js**, and distributed systems, with recent experience shipping RAG, LLM, and infrastructure automation solutions.

TECHNICAL SKILLS

Languages: Python, TypeScript, JavaScript, Java, Go, Bash, PowerShell

Backend: FastAPI, Node.js, Express.js, Spring Boot, REST APIs, Microservices

Cloud & Infrastructure: AWS Lambda, EC2, S3, API Gateway, RDS, CloudWatch, EventBridge, Terraform, Docker

Databases & Messaging: PostgreSQL, MongoDB, Redis, DynamoDB, Kafka

AI/ML Systems: RAG, LLMs, AWS Bedrock, Claude, Hugging Face, FAISS, Sentence Transformers

DevOps: GitHub Actions, CI/CD, Infrastructure as Code, Monitoring, Logging

EXPERIENCE

Systems Analyst / Software Engineer | ML Technologies LLC, Boston, MA | Jul 2025 - Present

- Built **RAG-based** conversational AI systems using **Python FastAPI** and **AWS Bedrock** for workforce, insurance, and EV marketplace platforms.
- Developed an **LLM** text-normalization pipeline using Claude and evaluation workflows, converting underwriter shorthand into audit-ready prose and saving 30–45 minutes per underwriter per day.
- Automated **AWS infrastructure** using Terraform, CloudWatch, and Bash, reducing environment onboarding from 4 hours to 15 minutes.
- Partnered with product, engineering, and applied AI teams to translate ambiguous requirements into production-ready backend and AI workflows.

Backend Software Engineer | Keelworks Foundation, Oak Harbor, WA | Jul 2024 - Jul 2025

- Designed hybrid cloud storage using **AWS S3** and **Google Cloud Storage**, with **Terraform-managed infrastructure** and **EventBridge-Lambda** event processing.
- Built and Dockerized **Node.js** backend services deployed through AWS ECR for volunteer management workflows.
- Partnered with DBA to design **PostgreSQL** schema and deploy AWS RDS Multi-AZ for high availability and global accessibility.
- Implemented Amazon CloudWatch monitoring across AWS Lambda, EC2, RDS, and API Gateway, triggering SES alerts for failures and response delays.

Software Engineer | Hewlett-Packard Inc, Bangalore, India | Oct 2019 - Jul 2022

- Automated BIOS configuration deployment using **PowerShell**, reducing a 4-day manual workflow to 15 minutes and eliminating 90% of manual setup effort.
- Built **React.js** and **Node.js** dashboard for hardware provisioning workflows, improving visibility across engineering and QA teams.
- Developed OS deployment automation for enterprise device provisioning, reducing setup from days to hours and supporting deployment across 100K+ client machines.

Associate Software Engineer | Digital API Craft Pvt Ltd, Bangalore, India | Jul 2019 - Oct 2019

- Migrated user services from a monolith to **Spring Boot** microservices with **Kafka** messaging for banking workflows processing 50K+ daily transactions.
- Built a **Golang-based** domain provisioning system with **DNS integration**, automating client onboarding and reducing manual setup.

NOTABLE PROJECTS

- Built a **corpus-grounded support triage agent** using **Python, Claude, FAISS**, and sentence-transformers, processing 56 tickets across a 774-document corpus with structured CSV output and zero fabricated high-risk policy responses.
- Deployed a **Hugging Face transformer** on a **RunPod serverless GPU** with persistent model storage and benchmarked GPU vs CPU inference performance.

EDUCATION

MS Information Systems | Northeastern University, Boston, MA | Sep 2022 - April 2024

BE Information Science & Engineering | Visvesvaraya Technological University, India | Aug 2015 - Jun 2019

CERTIFICATIONS

CS50's Introduction to Artificial Intelligence with Python | Harvard University | Aug 2025