

HARSHA VARDHAN YELLELA

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SUMMARY

Software Engineer with hands-on experience building scalable backend systems, RESTful APIs, and cloud-native microservices. Proficient in Python (FastAPI), Go (Gin), and AWS services (Lambda, ECS, DynamoDB). Built production systems handling 94+ serverless functions, third-party integrations (Stripe, Twilio, DocuSign), and Kubernetes deployments. Strong foundation in API design, containerization, CI/CD pipelines, and database optimization.

EXPERIENCE

Graduate Research Assistant – Agentic AI <i>Lawrence Technological University</i>	Jan 2025 – Dec 2025 <i>Southfield, MI</i>
<ul style="list-style-type: none">Deployed persistent backend services on AWS Fargate and Amazon EKS, integrating OpenSearch Serverless for semantic search and document retrieval.Built multi-agent systems using Python (CrewAI + LangChain) with RESTful APIs for workflow automation and intelligent decision-making.Designed hybrid service pipelines achieving 70% reduction in manual process time through automation and API orchestration.	

Infor India Pvt. Ltd. <i>LN Technical Consultant</i>	Apr 2022 – Dec 2023 <i>Hyderabad, India</i>
<ul style="list-style-type: none">Developed modular, production-ready tools for global clients (Ferrari, Boeing, Triumph) by extending Infor LN ERP workflows for inventory and manufacturing.Integrated AWS S3, Lambda, and API Gateway with enterprise systems to enable asynchronous data pipelines, reducing batch processing delays by ~40%.Containerized business logic services using Docker and orchestrated deployments, improving consistency across client environments.	

TECHNICAL SKILLS

<ul style="list-style-type: none">Languages: Python, Go, TypeScript, JavaScript, SQL, Bash Core: Data Structures, Algorithms, OOPBackend Frameworks: FastAPI, Flask, Gin (Go), Express.js Pydantic, JWT, CORS, HATEOASCloud (AWS): Lambda, ECS Fargate, EC2, API Gateway, S3, DynamoDB, ECR, SQS, SageMakerDatabases: PostgreSQL, MySQL, SQLite, DynamoDB, MongoDB Caching: Redis Vector: Qdrant, pgvectorDevOps: Git, Linux, Docker, Kubernetes (EKS), Terraform, Jenkins, GitHub Actions, CI/CD PipelinesPractices: Agile/Scrum, Unit Testing, Integration Testing, Code Reviews, RESTful API DesignIntegrations: Stripe, Twilio, DocuSign, QuickBooks, OpenAPI/Swagger	
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PROJECTS

Blindspot – Cognitive Bias Detector Chrome Extension <i>JavaScript, Chrome Extension (Manifest V3), Claude API, Service Workers</i> GitHub	Jan 2026
<ul style="list-style-type: none">Built Chrome Extension with Manifest V3 architecture using Service Workers, Content Scripts, and Context Menu API for real-time webpage analysis.Integrated Claude API for AI-powered cognitive bias detection; implemented keyboard shortcuts (Ctrl+Shift+B) and right-click context menu triggers.Designed proactive intervention system monitoring high-risk sites (e-commerce, subscriptions) with content script injection for universal webpage support.	

AI Resume Builder (Resumade.in) – Serverless Backend <i>FastAPI, AWS Lambda, DynamoDB, GPT-4, Gemini, BeautifulSoup</i>	Dec 2025
<ul style="list-style-type: none">Architected serverless backend using FastAPI + AWS Lambda + DynamoDB with 95%+ uptime and sub-2s PDF/Word generation.Integrated multi-LLM pipelines (GPT-4, Gemini, DeepSeek) with custom prompts; implemented LinkedIn job scraping for tailored resume optimization.Configured JWT + Google OAuth authentication and CI/CD via GitHub Actions, reducing manual resume effort by 80%.	

Online Learning Portal – Microservices CI/CD Platform <i>FastAPI, Jenkins, Docker, Kubernetes, AWS ECS Fargate</i> GitHub	Nov 2025
<ul style="list-style-type: none">Built 6-microservice platform (user, course, enrollment, payment, notification, API gateway) using FastAPI with Docker containerization.Implemented branch-per-service CI strategy with Jenkins Multibranch Pipeline; automated Docker builds with commit hash tagging.Deployed to AWS ECS Fargate with ALB routing, ECR registry, and Kubernetes manifests for EKS deployment.	

Job Portal REST API – Full-Stack Job Listing Platform

Oct 2025

Python, FastAPI, SQLite, Docker, AWS ECS/ECR | GitHub

- Built **production-ready RESTful API** with **25+ endpoints** supporting full CRUD operations for job seekers, employers, postings, and applications with **Pydantic v2 validation**.
- Designed and implemented **HATEOAS-compliant architecture** enabling hypermedia-driven navigation, improving API discoverability and client integration.
- Containerized using **Docker Compose** with persistent volumes; deployed to **AWS ECR/ECS** demonstrating end-to-end **CI/CD pipeline**.

FieldFuze Backend – Enterprise Go API with Multi-Tenant RBAC

Dec 2024

Go 1.23, Gin, DynamoDB, JWT, Docker, GitHub Actions

- Built **production-ready REST API** in **Go/Gin** with **multi-tenant RBAC architecture**, implementing complete user lifecycle (register, login, logout, validate).
- Designed **modular architecture** using **controller → service → repository pattern** with comprehensive middleware (JWT auth, CORS, logging).
- Created **infrastructure automation worker** for DynamoDB table/index management; wrote extensive **unit tests** for all layers.

Lambda Microservices Platform – Field Service Backend

Dec 2024

Python, AWS Lambda, DynamoDB, S3, Stripe, Twilio, DocuSign, Terraform

- Developed **94 AWS Lambda functions** for complete SaaS platform, integrating **Stripe Connect** for vendor onboarding and payment processing.
- Implemented **DocuSign e-signature workflow**, **Twilio calling integration**, and **QuickBooks accounting sync** for invoicing automation.
- Built **automated deployment pipeline** with Git change detection using **Terraform IaC** and **CloudFormation** templates.

EDUCATION

Lawrence Technological University

Jan 2024 – Dec 2025

Master of Science in Computer Science · GPA: 3.6/4.0

Southfield, MI

- Relevant Coursework: **Machine Learning, Artificial Intelligence, Natural Language Processing, Intelligent Robotics (ROS), Cloud Microservices**

Geethanjali College of Engineering & Technology

Aug 2018 – Aug 2022

Bachelor of Technology in Computer Science & Engineering · GPA: 7.5/10 (~3.0/4.0)

Hyderabad, Telangana

- Relevant Coursework: **Software Engineering, Data Structures & Algorithms, Database Management, Operating Systems**

ACHIEVEMENTS

- Selected for **Amazon Nova AI Challenge: Trusted AI Track** (2025)
- Built production SaaS platform with 94 Lambda functions serving real customers (2024)
- Gold Medalist in Indian National Mathematical Olympiad (INMO) (2012)