Mithilesh Charan Perugu

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EDUCATION

National Institute of Technology, Raipur — Raipur, India
B. Tech in Computer Science and Engineering (CSE) – 8.5 CGPA — *Dec 2020 – June 2024*

Narayana Junior College (N120) — Vijayawada, India
MPC – 95.7% — *April 2018 – June 2020*

EXPERIENCE

Software Engineer - Backend Development — July 2024 – Present
Ford Motor Company — *Chennai, India*

- Developed **Central Shutdown Automation**(CSA) using **Java Spring-boot, React and AWS**, automatically managing VM lifecycle during weekends and holidays, **reducing cloud costs by 25%+** with user-configurable scheduling.
- Designed and developed scalable backend services for Privileged Access Manager (PAM), enabling fine-grained access control across 800+ user roles using **Python, Rest APIs and PostgreSQL.**
- Created **SSL/TLS cert renewal Automation** (CERTMAN) using **Java Spring-boot, Python, REST APIs, Secret Manager**, monitoring 1000+ .ford.com domain certificates and automating CSR generation, CA approval workflows, time-bound email, text notifications.
- Built **PCAS (Public Cloud AI Support)** chatbot using **GPT-4.0**, integrating **Elasticsearch** for document indexing and DialogFlow, spaCy for Natural Language Processing, serving 500+ support queries daily.

Software Engineer Intern — Jan 2024 – June 2024
Ford Motor Company — *Chennai, India*

- Developed a high-throughput **REST API** using **Flask** and deployed it on **GKE**, handling over 10,000+ JSON requests/hour with versioned rollouts and monitoring.
- Built robust test suites, modules for various applications with **JUnit, PyTest** and integrated API documentation, security using OpenAPI Swagger, Apigee.
- **Led a full-stack internal tooling initiative** that automated service health checks, saving 100+ hours of manual debugging during incident response.

TECHNICAL SKILLS

Languages: Python, Java, C++, JS, SQL, Shell Scripting
Backend & Frameworks: Spring Boot, Flask, FastAPI, Node.js, Express.js, REST APIs, Tailwind, React, GraphQL
Databases: PostgreSQL, MySQL, MongoDB, Redis, ElasticSearch, DynamoDB, BigQuery,
AI/ML Tools & Platforms: spaCy, OpenAI APIs, Replit, LangChain, Hugging Face, PineCone, Co-Pilot
Architecture & Practices: Microservices, APIs, OOPs, Load Balancing, Caching, Git, CI/CD, Linux, Agile(JIRA)
Cloud & DevOps: GCP, AWS, Docker, Kubernetes, Jenkins, Terraform, GitHub Actions

PROJECTS

ClarityLedger – Personal Budgeting & Forecasting System | *Spring Boot, PostgreSQL, React, Docker, GCP*

- Designed backend architecture for user authentication, expense tracking, and budget goal management using **Spring Boot, JWT, PostgreSQL**.
- Built REST APIs for CRUD operations, recurring transactions, and category-wise analytics; containerized via **Docker** and deployed on GCP.
- Implemented modular code structure with separation of concerns and planned CI/CD pipeline using GitHub Actions.

CERTMAN – SSL Certificate Renewal Automation | *Python, REST APIs, AWS Secret Manager, React*

- Automated **SSL/TLS cert expiration** monitoring for 1000+ .ford.com domains with daily scans, email/text alerts, and dashboard tracking.
- Enabled the **CSR generation, CA approval workflows** and delivery of certificates + private keys for Certman-based apps with redeployment validation and role-based access.
- Supported onboarding for .ford.com(internal) and external certs, reducing manual effort and outages by **60%+ across teams**.

Achievements & Certifications

Ford Ideathon Winner 2025 April 2025

GitHub Automated Pull Request Code Review Process

- Developed automated code review system using **Python, GitHub Actions and OpenAI GPT 4.0** with integrated static analysis, security scanning, and custom linting rules.
- Implemented automated pull request validation and approval workflows, **reducing manual code review time by 60%** while maintaining code quality standards.

Google Cloud Platform – Associate Cloud Engineer Issued: February 2025

Google Cloud

- Credential ID: credly - c7f3e5ea-819f
- Demonstrated ability to configure **Virtual Machines, Kubernetes clusters**, IAM roles, VPC networks, and use GCP CLI/tools effectively.
- Reinforced real-world experience with infrastructure automation, CI/CD, and production-grade deployments on **Google Cloud Platform**.