Venkateswara Rao Narra

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PROFESSIONAL SUMMARY

Full Stack Python Developer with 4+ years of experience building real-world web apps and ML-based features from scratch. I work mainly with FastAPI, Django, and Flask for complex APIs, and use React + TypeScript on the frontend. Comfortable handling everything from backend logic and model deployment to CI/CD and cloud setup on AWS or Azure. I've delivered end-to-end systems in healthcare, fintech, and retail that actually scale and solve problems.

WORK EXPERIENCE

Software Development Engineer, Dallas, TX   **Jan 2023 - Present**
Veritis Group Inc

- Developed real-time prediction APIs using **FastAPI** for a clinical decision support tool used by doctors to assess treatment options — handled **25K+ daily inferences** with <200ms response time.
- Built and deployed **diagnosis risk scoring models** (classification, regression) for hospital intake prioritization; automated training + deployment using **Scikit-learn**, **Pandas**, and model versioning.
- Created an **event-driven pipeline** using **AWS Lambda + SQS** to process and clean incoming EHR data before model scoring — improved data processing speed by 40%.
- Set up **GitLab CI/CD workflows** to automate Docker builds, API testing, and deployment approvals; enabled the team to ship updates weekly without manual intervention.
- Integrated **Prometheus and Grafana dashboards** to track live prediction quality, identify model drift, and alert on anomalies; improved monitoring accuracy by 70%
- Worked with frontend teams to deliver **"Risk Overview"** and **"Predictive Flags"** UI features that display real-time ML insights to clinicians in patient dashboards.
- Contributed to building the **"Patient Risk Overview" dashboard** using **React and Chart.js**, integrating real-time API responses from ML models to display risk scores and alert flags to clinicians.

Full Stack Developer, India   **Feb 2021 - June 2022**
TCS

- Built a full-stack loan platform using Django and React with TypeScript, enabling streamlined loan processing workflows.
- Designed ML scoring APIs that integrated with credit bureau and user data to automate loan risk classification.
- Developed real-time dashboards using Redux and TypeScript for underwriters to manage and approve applications.
- Deployed the application on Azure App Services with Blob Storage and Azure SQL for secure file and data management.
- Implemented PostgreSQL triggers and stored procedures for automated interest calculation and loan validation rules.
- Maintained high test coverage using PyTest and Jest, and enforced quality through code reviews within a 6-member team.

Junior Software Engineer, India   **May 2020 - Jan 2020**
Virtusa

- Developed backend features using Python and Flask with a strong focus on clean, object-oriented design principles.
- Automated data ingestion pipelines using Pandas and Azure Functions to support daily retail reporting.
- Built and maintained utility scripts for data parsing, validation, and storage in Azure SQL and MongoDB.
- Contributed to test automation using Selenium and gained working knowledge of Java for backend enhancements.

SKILLS & CERTIFICATION

Languages: C, Java, Python, C#, HTML, CSS,, NodeJS, JavaScript, TypeScript, Angular, React-Redux, Bash.

Developer Tools: VS Code, PyCharm, IntelliJ, Jupyter Notebook, Git, GitHub, JIRA, Postman, WebRTC.

Machine Learning & Data: Scikit-learn, Pandas, NumPy, TensorFlow (basic), Matplotlib, LSTM (project-based), AI Concepts.

Cloud & DevOps: AWS (EC2, Lambda, S3, SQS, CloudWatch), Azure (App Services, Blob, SQL), Docker, Kubernetes, Rancher, Terraform, Jenkins, GitLab CI/CD, GitHub Actions, GoCD.

Frameworks & Libraries: FastAPI, Django, Flask, React, Redux Toolkit, Bootstrap JDBC, JPA, ReactJs, AngularJS, RESTful APIs, Postman.

Concepts & Methodologies: REST APIs, Object-Oriented Programming (OOP), Data Structures, Algorithms, Microservices, Async Programming, Agile, SDLC, SaaS Architecture, CI/CD, Testing & Code Reviews.

Certifications: Advance Learning Algorithms(Stanford), Artificial Intelligence l(IBM), Deep Learning Specialization(Coursera)

PROJECTS

Music Streaming Service Node, Express, React)	Spring Boot Restful APIs(Java, Jstl, Bootstrap)
Attack Detection In Collaborative Recommendation System()	Stock Market Prediction using LSTM and Monte Carlo Simulation
Embedded Multitasking Project(Java, JWT, OAuth)	Two Factor Access Control for Web Based Cloud Services(C++)

EDUCATION

George Mason University, Fairfax,   **Aug 2022 - May 2024**
Master of Computer Science   CGPA: 3.47/4.00