VAKA PERI REDDY

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🔗 LinkedIn   ⦿ GitHub

Objective

Detail-oriented software engineer with experience in IoT platforms, machine learning, and full-stack development. Passionate about smart infrastructure, predictive systems, and digital twins. Seeking to contribute to impactful research-oriented software products.

Professional Experience

Junior Software Engineer   **Oct 2024 – Present**
Smart City Living Lab @ IIIT Hyderabad   *Hyderabad, India*

- Designed and developed full-stack IoT applications for smart city infrastructures using MERN stack.
- Built scalable dashboards and analytics tools for real-time system monitoring.
- Integrated CI/CD pipelines using Docker and GitHub Actions for faster deployments.
- Contributed to research-based software development in collaboration with urban mission stakeholders.

Software Research Intern   **Feb 2024 – Sep 2024**
Smart City Living Lab @ IIIT Hyderabad   *Hyderabad, India*

- Worked in a collaborative R&D environment focused on urban innovation and real-time smart city systems.
- Contributed to IoT-driven research projects involving data acquisition, system integration, and platform development.
- Engaged with domain experts and researchers to translate urban infrastructure problems into scalable software solutions.

Skills

Technologies: Full Stack Development, Machine Learning, Data Analysis, DevOps

Programming Languages: Python, JavaScript, Go, SQL, HTML, CSS

Frameworks: FastAPI, ReactJS, Node.js, ExpressJS, Next.js, Chart.js, Beego, Echo

Databases: PostgreSQL, MySQL, MongoDB, Prometheus, InfluxDB

Tools: Tableau, Grafana, Git, Docker, Jenkins, postman, Locust, Jmeter, Material-UI, Figma

Other Skills: Problem Solving, Leadership, Communication, Critical Thinking

Projects

City IoT Operating Platform (ctOP)   **Architect & Full Stack Developer**

- Developed a scalable platform wrapping oneM2M-compliant IoT infrastructure for standardization, monitoring, and automation.
- Integrated predictive maintenance recommendations and system-wide health checks.
- Implemented load balancing for horizontal scalability and high system availability.

Digital Twin for Water Networks   **Research & UI Developer**

- Designed an interactive frontend for water flow simulation based on real sensor data.
- Collaborated with backend team for live integration and error handling.
- Worked on the real-time field actuation engines of digital twin.

Substation Monitoring Dashboard (BYPL)   **Full Stack Developer**

- Built real-time monitoring dashboard for energy substations using ReactJS and Tableau.
- Worked on both backend services and UI layers to ensure live data sync.

Job Board Platform   **Full Stack Developer**

- Developed MERN-based job platform with role-based access, listings, and application tracking.

Sentiment Analysis Tool   **Team Lead**
- Built a machine learning model to predict public sentiment and preferences using supervised learning.

Conversational Chatbot   **Developer**
- Built and deployed a chatbot using Google Dialogflow to automate user support queries.

Certifications

FMML (Foundations of Modern Machine Learning), IIIT Hyderabad — Apr–Aug 2023

Positions of Responsibility

Student Leader, **Global Coding Club (GCC)** at KIET College — Led and organized all student-driven technical initiatives.

Research Interests

Digital Twins

Machine Learning and Neural Networks

3D Development and Real-Time Visualizations

Education

Bachelor of Technology in Computer Science   **2020 − 2024**
Kakinada Institute of Engineering and Technology (KIET)   *CGPA: 7.50*

Intermediate (MPC)   **2018 − 2020**
Sri Saraswathi Junior College   *GPA: 9.09*

SSC   **2018**
Sri Saraswathi High School   *GPA: 9.8*