ASRITHA VEMIREDDY

**Forward Deployed Engineer (AI) | Python • TypeScript/React • LLM Integration | Production Delivery**

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# SUMMARY

# Forward Deployed Engineer (AI) with 5+ years of experience delivering full-stack and AI-driven solutions in healthcare and enterprise domains. Skilled in building React/TypeScript frontends, Python services, and RESTful APIs that integrate Generative AI and LLM technologies (OpenAI, LangChain, RAG pipelines) into real-world workflows. Proven track record of working directly with clients to design and deploy 0→1 products, run demos, and refine features based on field feedback. Experienced in production delivery with Docker, Kubernetes, AWS, and CI/CD pipelines, ensuring reliable, scalable, and secure deployments. Adept at bridging technical problem-solving with customer needs to make AI systems usable and impactful in operational environments.

# TECHNICAL SKILLS

**Programming & Scripting:** Python, TypeScript, JavaScript (ES6+), Java, SQL **Frontend Development:** React (Hooks, Redux, Context API), Angular, Tailwind CSS, Chart.js **Backend & APIs:** RESTful APIs, Node.js/Express, Spring Boot, Event-driven workflows **AI/ML Integration:** Generative AI (OpenAI, LangChain), RAG pipelines, NLP, ML model deployment, real-time inference APIs **Cloud & DevOps:** AWS (Lambda, S3, EC2, Redshift), Docker, Kubernetes, Jenkins, GitHub Actions, CI/CD pipelines **Databases:** PostgreSQL, MySQL, MongoDB, Redshift, NoSQL **Security & Authentication:** OAuth 2.0, JWT, Role-based Access Control **Data Visualization & BI:** Power BI, Plotly, Chart.js **Development Practices:** Agile (Scrum), SDLC, TDD/BDD, Client-facing delivery

# PROFESSIONAL EXPERIENCE

**CDx Diagnostics – AI Software Engineer — New York, USA | Jan 2024 – Present**

* Built and deployed **AI-driven web applications** by integrating Generative AI and LLM features into **React.js/Typescript frontends** and **Python-based services**, accelerating adoption of intelligent workflows.
* Engineered **RESTful APIs** to connect enterprise systems with ML/NLP models, enabling **real-time predictive analytics** for clinical teams.
* Implemented **RAG pipelines with OpenAI and LangChain**, delivering higher accuracy and personalization in decision-support tools.
* Optimized system performance by introducing **caching, concurrency controls and load balancing** reducing inference latency by **30%**
* Delivered **secure, production-ready deployments** using **Docker, Kubernetes, and CI/CD automation**, ensuring reliability across environments

**HCLTech – Software Engineer — Bangalore, India | Aug 2021 – Jan 2023**

* Built scalable backend services and reusable components with Python and REST APIs, supporting enterprise-grade applications and reducing development effort through modular design.
* Developed interactive dashboards with Angular and Power BI, enabling business teams to access real-time insights and improve decision-making speed.
* Refactored APIs and introduced event-driven workflows, improving system performance and responsiveness for high-volume workloads.
* Increased application reliability with caching, concurrency controls, and AWS Lambda microservices, minimizing downtime and accelerating response times.
* Collaborated with business owners to prioritize requirements, run demos, and incorporate user feedback into dashboard and API improvements.

**Temenos – Software Engineer — Hyderabad, India | May 2020 – July 2021**

* Designed and deployed responsive banking dashboards using React and JavaScript, delivering real-time insights to over 100K global users.
* Modernized legacy reporting modules by migrating from jQuery to React, adding advanced filtering, drill-down analytics, and AI-driven insights.
* Improved application performance and user experience by optimizing state management with Redux and Context API, significantly reducing load times.
* Created usage guides and conducted training sessions for business teams, increasing adoption of new React-based dashboards.

# EDUCATION

**Pace University** – MS, Computer Information Systems | New York, USA

**Amrita Vishwa Vishyapeetham** – B.Tech, Computer Science Engineering | Coimbatore, India