Vivek Gaddam

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PROFESSIONAL SUMMARY

Full-Stack Software Engineer with **4+ years** building scalable web applications and automation systems using **Python**, **Flask**, **React**, and **Node.js**. Expertise in developing end-to-end solutions from **REST APIs** to responsive frontends, with production deployments on **AWS**, **Docker**, and **Kubernetes**. Delivered enterprise platforms achieving **85%** reduction in manual processes and **40%** faster response times through optimized backend architectures and modern JavaScript frameworks.

EXPERIENCE

Software Engineer II — June 2025 - Present
New York State Office of Information Technology - Strategy & Enterprise Architecture — *Albany, NY*
- Built self-service Developer Portal for NY State agencies using **Angular 21**, **Spring Boot 3.2**, and **Oracle DB**, enabling identity verification onboarding via a guided wizard workflow.
- Integrated **ServiceNow API** for dynamic service catalog sync and implemented **Server-Side Rendering** with **Angular SSR/Express.js** for improved performance and SEO.
- Developed real-time uptime monitoring dashboard using **Angular**, **Node.js/Express**, and **Dynatrace API** to visualize service health metrics across environments.
- Built full-stack password management app for **NY.GOV ID IAM** platform (20M+ users) using **Angular 17**, **Spring Boot 3.2**, **OAuth 2.0/SAML**, and **LDAP**, reducing verification time by 40%.
- Developed **Flask**-based bulk upload automation with **DAWS/SOAP** integration and **PostgreSQL**, cutting user provisioning time by 85%.
- Engineered Tier 0 **IAM** infrastructure using **Red Hat Directory Server** and **IBM WebSphere** microservices, achieving 90% uptime across all NY.GOV ID systems.
- Containerized and shipped applications to **OpenShift** using **Docker**, **Helm**, and **GitLab CI/CD**, integrating **SonarQube**, **OWASP ZAP**, and **Elastic APM** which streamlined release pipelines and enhanced code-quality monitoring.

Software Engineer — May 2024 - May 2025
New York State Office of Information Technology Services - Web Platform Services — *Albany, NY*
- Maintained 10+ platforms using **Drupal**, **PHP**, and **JavaScript** with **WCAG** standards on **Acquia Cloud**. Performed code reviews and refactored **TypeScript** modules, reducing vulnerabilities by 70% and improving system reliability.
- Optimized **HTML5**, **CSS3**, and **Twig** templates to resolve performance bottlenecks, achieving 50% reduction in page load times and enhancing user experience across state web properties.
- Established **CI/CD** pipelines with **GitHub Actions** and **Docker**, cutting production rollback incidents by 60% through consistent deployment practices.

Founder & Software Developer — March 2021 - April 2023
EFORGE NexGen Innovations Pvt. Ltd. — *Hyderabad, India*
- Created scalable **Python** backends on **AWS/Linux** for **AI/IoT** platforms, reducing processing latency by 50% through distributed optimization.
- Deployed **ML-powered** analytics dashboards with real-time inference on cross-platform **Android** apps using **Docker**, achieving **35%** workflow automation gains. Mentored 5+ engineers in ML system design and model deployment.

Software Engineer Intern — January 2020 - March 2021
NewGen Innovation Center, CVR College of Engineering — *Hyderabad, India*
- Tackled resource inefficiencies in agriculture by developing **ML** solutions in **Python** and **C++** for IoT-based smart farming, improving resource management by 25% through automation.
- Published **3 research papers** on ML-driven smart agriculture and filed **3 patents** advancing AI methodologies for IoT-based precision farming.

PROJECTS

Multi-Sentence Image Description with Hierarchical RNNs
- Created deep learning pipeline in **Python** and **TensorFlow** using two-level RNN architecture, achieving 85% BLEU-4 on 50K+ COCO images with 22% performance gain over baselines.
- Deployed **Flask REST API** with **Docker** on **Linux**, enabling sub-500ms inference latency for accessibility use cases.

PlanVoyage – AI-Powered Destination Recommendation Web App
- Designed travel system using **Next.js**, **Express.js**, and **MongoDB** with query optimization, reducing response times by 40%.
- Integrated **JWT**-based **RBAC** authentication with AI filtering, resulting in 45% increase in user engagement through personalized recommendations.

PrepSmart – AI Interview Assessment Platform
- Architected **TypeScript** and **ReactJS** app with **OpenAI APIs** for automated interview feedback, earning 80% positive ratings.
- Implemented **WebSocket** streaming with **AWS**-hosted backend, **CI/CD** pipelines using **Docker**, maintaining 95% uptime.

EDUCATION

University At Albany, State University of New York — Albany, NY
Master of Science in Computer Science — *August 2023 - May 2025*

TECHNICAL SKILLS

Languages/Frameworks:	Java, Python, JavaScript, TypeScript, Spring Boot, Maven, C, C++, PHP
Web/Frontend:	React.js, Angular, Next.js, Node.js, Express.js, Drupal, Tailwind, CSS3, HTML5, JQuery
Identity/Auth (IAM):	Okta, OAuth 2.0, SAML, JWT, LDAP, Red Hat Directory Server, Spring Security
Cloud/DevOps:	AWS, Docker, Kubernetes, Jenkins, IBM WebSphere, OpenShift, Linux
Databases/Tools:	PostgreSQL, MongoDB, REST/SOAP APIs, Git, GitLab, JIRA, CI/CD
AI/ML:	TensorFlow, PyTorch, scikit-learn, OpenAI API, LangChain, MLflow, NLTK, spaCy

CERTIFICATIONS

- **AWS Certified Developer – Associate** – Amazon Web Services | Certificate
- **Software Engineering Job Simulation** – JPMorgan Chase & Co. | Certificate
- **Full Stack Web Development** – UDEMY | Certificate
- **Programming Proficiency** – HackerRank | Certificate
- **Database Programming with SQL** – Oracle | Certificate