Nikhitha Sivaprakasam

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Seeking SWE/AI Engineer Roles | Buffalo, NY - Willing to Relocate

EDUCATION

University at Buffalo - SUNY Buffalo, NY
Masters in Computer Science and Engineering *Aug. 2024 – Dec 2025*
Anna University Chennai, India
Bachelors in Computer Science and Engineering *Aug. 2016 – May 2020*

RELEVANT EXPERIENCE

Graduate Assistant – Data and Software Engineering May 2025 – Present
University at Buffalo *Buffalo, NY*
- Engineered and deployed automation scripts using Python, SQL, and JavaScript to **streamline data workflows and backend operations, reducing manual effort by 50%** and boosting team productivity.
- Designed and built **executive-facing dashboards in Tableau and Excel** with automated data cleaning, transformation, and visualization, reducing reporting time by 40% and enabling faster, data-driven decisions.
- Developed robust internal tools and reporting pipelines using MySQL and PostgreSQL, improving data accuracy by 30%, reducing redundancy, and ensuring consistent reporting across operational systems.

Software Development Analyst May 2023 – July 2024
Roche(Via Accenture,Chennai, India) *Chennai, India*
- Built patient/drug data management web app for Roche, streamlining operations and improving accuracy by 90%.
- Actively participated in implementing **agile best practices such as continuous integration, test-driven development**, and rigorous code reviews, significantly enhancing the overall quality and maintenance.
- Led cross-functional team building **an online data repository application for sensitive clinical trial data and findings** incorporating seamless data visualization, influencing R&D operations and **increasing sales by 38%**.
- Engineered applications **reducing system downtime by 75%**. Received **Best Employee and Client Value Creation awards (2022 & 2023)** and mentored 5 junior developers while delivering critical projects.

Software Development Associate May. 2021 – May 2023
Accenture *Chennai, India*
- Leveraged full-stack development expertise to build and deploy high-performance web and mobile applications, resulting in a **75%+ improvement in load times** and an **80% increase in user engagement across platforms,** ensuring high scalability and reliability for applications **serving over 10,000 monthly active users.**
- Translated complex business requirements into scalable and efficient technical solutions by **architecting 75+ seamless API integrations using REST and SOAP**. Enabled real-time data flow and external system connectivity, **leading to a 90% reduction in manual processes and an 85% boost in operational efficiency.**
- Designed a high-performance relational database with robust referential integrity and smart indexing strategies, **supporting query speeds 80% faster than the previous setup and reducing data redundancy by over 75%.** The solution effectively **handled a 4x increase in data volume without performance bottlenecks.**

RECENT PROJECTS

Enterprise SaaS Boilerplate | *FastAPI, PostgreSQL, Stripe, Docker*
- **Developed foundational SaaS platform** that **reducing 6+ months of development time** for startups by providing **pre-built multi-tenancy, billing, and user management systems.**
- Processed real **subscription payments via Stripe integration** with automatic billing cycles and plan upgrades.
- Implemented **enterprise-grade security (data isolation, JWT, OWASP compliance)**. Deployed scalable backend with **99.9% uptime, monitoring, and auto-scaling** handling variable load patterns.

AI-Powered Learning Code Reviewer | *FastAPI, PostgreSQL, OpenAI API, Docker, AWS*
- **Built intelligent code analysis platform** providing personalized learning feedback and mistake identification, **reducing code review time by 60% and accelerating learning by 40%** through AI-powered explanations.
- Engineered scalable backend processing **1000+ daily analyses using FastAPI, Redis, and Celery** for async processing, with optimized PostgreSQL supporting learning progress tracking and skill analytics.
- **Deployed production infrastructure** with Docker, Terraform, and AWS (S3, EC2, RDS), achieving 99.9% uptime through automated CI/CD, Prometheus monitoring, and auto-scaling architecture.

TECHNICAL SKILLS

Languages and Databases: Python, MySQL, PostgreSQL, JavaScript, HTML/CSS
ML/AI Frameworks & Platforms: PyTorch, TensorFlow, OpenAI API, Keras
Backend & Cloud Technologies: FastAPI, SQLAlchemy, Redis, Celery, AWS (S3, EC2, RDS), Docker, Terraform
Developer Tools: Git, GitHub Actions, JIRA, VS Code, Prometheus, Grafana, CI/CD
Libraries: pandas, NumPy, Matplotlib, scikit-learn, Plotly, Tableau, Pinecone, Tree-sitter
IDEs: VS Code, PyCharm