Nilava Saha

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Summary

Software Engineer driven by a passion for cloud architecture and maintaining robust applications. Hands-on experience in full-stack development, with particular enthusiasm for DevOps automation and scalable system design. Built production-ready applications using Python, React, Docker, and AWS that support 50+ concurrent users. Thrives in collaborative environments while delivering technical solutions that make a real impact.

Education

University of Texas at Austin — B.S. Computer Science

2021 - 2025

Data Structures, Operating Systems, Computer Architecture, Debugging, Cloud Computing, Algorithms

Skills

Languages: Python, C, C++, C#, Java, JavaScript, Kotlin, HTML/CSS, Bash, ACL2, Lisp, SQL, R

Frameworks: React, Flask, Node.js, Docker, Kubernetes, Jenkins, Git, GitHub, AWS (EC2, S3), Google Cloud Console, REST APIs, VS Code, Helm

Additional: CI/CD, DevOps, Secure Coding, Server Management, UI/UX Design, Agile, Scrum, Testing & Reporting, Networking, Automation, Figma, Canva, Linux

Work Experience

UTeach Outreach, College of Natural Sciences — Full-Stack Dev/Teacher

2023 - 2025

- Built custom interactive mapping tools and web applications using HTML, CSS, and JavaScript, serving 40+ students per semester with 99% uptime.
- Collaborated with stakeholders to gather requirements and deliver technical solutions, following SDLC best practices including version control, testing, and deployment procedures.
- Maintained the official UTeach Outreach website, implementing new features and updating content for improved user experience and accessibility.
- Led technical workshops on Python and web development, teaching industry best practices and modern development workflows to enhance student comprehension.

Walmart Supercenter — Front-End Associate

2021 - 2023

• Supervised and coordinated 8–12 associates, improving team efficiency and customer satisfaction through effective training, task delegation, and morale-building initiatives.

Projects

Personal Automated Assistant—VS Code. Git. Python. Agile

- Built a Python-based personal assistant with text-command functionality, integrating RESTful APIs for music streaming and queries.
- Automated server deployment and scaling using Bash scripts on Unix systems, deployed to 50+ concurrent users, with demand-based resource allocation.

Full-Stack Development—VS Code, Git, DuckDNS, HTML, CSS, JavaScript, Latex, Flask

- Designed and deployed multiple web applications including portfolio sites and client projects using HTML, CSS, and JavaScript, achieving 500+ page views with optimized performance and SEO
- Created UI mockups in Figma and Canva to build a responsive layout showcasing personal projects, skills, and resume.

AWS and Google Cloud and Deployment—VS Code, Bitbucket, Python, Kubernetes, Jenkins, Docker

- Developed and deployed a containerized Python web app using Docker, Kubernetes, and Helm that utilizes REST dynamic endpoints to create a scalable cloud-native architecture
- Built a CI/CD pipeline using Jenkins and Helm, automating Docker builds and rolling updates with kubectl commands.