Nilava Saha

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Summary

Backend Engineer with a strong foundation in full-stack development and cloud architecture. Proven ability to integrate legacy systems with modern LLM architecture and create seamless API bridges, enhancing user experience and system compatibility. Enthusiastic about scalable system design and automation, aiming to leverage expertise to drive impactful backend solutions.

Work Experience

DataAnnotation — *Contract Dev* Aug 2025 – Aug 2025
- Integrated legacy systems with modern LLM architecture, creating seamless API bridges to enhance user experience while maintaining backward compatibility with existing infrastructure.
- Implemented LoRA fine-tuning to customize modern LLM responses for customer service scenarios, improving answer accuracy for FAQ handling, complaint resolution, and product support inquiries.

UTeach Outreach, College of Natural Sciences — *Full-Stack Dev/Teacher* Jun 2023 – Apr 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 conflowtent for improved user experience and accessibility.
- Managed legacy codebase maintenance including refactoring, code reviews, and technical debt reduction while maintaining system reliability and implementing coding standards.

Walmart Supercenter — *Front-End Associate* Jul 2021 – Sep 2023
- Supervised and coordinated 8–12 associates, improving team efficiency and customer satisfaction through effective training, task delegation, and morale-building initiatives.

Projects *(Titles link to source code)*

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 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.

Education

University of Texas at Austin — *B.S. Computer Science* 2021 – 2025
Data Structures, Operating Systems, Computer Architecture, Ethical Hacking, Cloud Computing, Algorithms, Mobile Computing, and 5+ more...

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