Neha Sawant

California, United States

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Skills

- Java | Python | C++ | C | JavaScript | React | Node | Express | HTML | CSS | Spring | Maven | Shell | Perl | MySQL | NoSQL
- OOP | REST | Postman | Amazon Web Services | Apache CloudStack | CI/CD | Jenkins | Docker | Kubernetes | Linux | Git
- Gen AI | LLM | Microservices | Distributed Systems | Frontend | Backend | Full-Stack | Agile

Education

Master of Science **Santa Clara University, US** **09/2023 - 03/2025**

- Major in Computer Science and Engineering | GPA: 3.88
- Coursework: Distributed Systems, Machine Learning, Operating Systems, Computer Architecture

Bachelor of Engineering **Pune University, India** **08/2016 - 05/2020**

- Major in Information Technology | GPA: 3.66
- Coursework: Cloud Computing, Data Structures, Object Oriented Programming, Computer Networks

Experience

Research Assistant **Santa Clara University, US** **04/2024 - Present**

- Conducted research focused on using deep learning for intrusion detection in network traffic.
- Trained the Word2Vec model on PCAP files to generate vector embeddings that capture the behavior of network traffic patterns.
- Employed cosine similarity to identify and measure the similarities between different network traffic patterns.

Mobile App Developer **SCU Frugal Innovation Hub, US** **12/2023 - 03/2024**

- Led a team of four to research, design, and develop a Bilingual Math App for Android/iOS using Flutter, Dart, Firebase.
- Built the app to assist Hispanic children overcome language barriers and learn math interactively, supporting bilingual needs and creating social impact. Features include quizzes, games, flashcards, text-to-speech, streak calendar, etc.

Software Engineer **Siemens, India** **03/2023 - 07/2023**

- Part of a 12-member Automation team for Communications Based Train Control System (CBTC) by Siemens Mobility.
- Developed Perl automation scripts for comprehensively testing wayside and onboard equipment of CBTC System.
- Performed code reviews, conducted test coverage analysis maintaining over 90% coverage, documented traceability, and release notes.

Senior Software Engineer **Persistent Systems, India** **11/2020 - 01/2023**

- Engineered Python scripts for integration and functional testing of Rovius Cloud Platform powered by Apache CloudStack.
- Designed test strategies and executed testing for Virtual Machines, Networking, Storage, KVM Agent, VMware, XenServer, etc.
- Developed Shell scripts for automating the IaaS management server installation and configuration, reducing manual efforts by 85%.
- Enhanced automation framework on Jenkins and fixed test scripts on GitLab decreasing 90% test failures due to framework issues.
- Led regular Build Verification Tests and Regression tests, troubleshooting critical issues, which reduced post-release defects.
- Deployed Docker containers on Linux VMs and exhaustively tested Kubernetes cluster deployment in CloudStack.
- Designed and developed scripts for bulk operations on CloudStack for performance testing. Executed performance tests on Cloud Platform, consolidated and visualized results showing API response time, CPU, and memory usage, etc.
- Assisted migration of CI/CD infrastructure to new servers, including network reconfiguration and script enhancements in CI/CD pipeline.
- Mentored Junior Engineers on Cloud Infrastructure concepts, Automation, KVM virtualization, and Kubernetes.

Projects

- **ATS:** Developed a generative AI Applicant Tracking System for resume analysis and rating, by fine-tuning LLM from Hugging Face, and prompt engineering. (Python, Streamlit, LLM) **(04/2024)**
- **Traffic Sign Recognition:** Built CNN models using Sequential and VGG19 architectures, achieving 98% accuracy in classifying traffic signs using both approaches. (TensorFlow, Keras, OpenCV) **(03/2024)**
- **Blogging App:** A responsive full-stack blogging platform with Google Oauth integration for secure login, CRUD operations, rich text-editor. Integrated a custom blog generator using Meta's Llama2. (React, Next, MongoDB) **(12/2023)**
- **PPE Detection System:** Developed a scalable and reusable web-based application for real-time detection of Personal Protective Equipment. (Core Java, Spring Boot, Maven, AWS EC2, S3, DynamoDB, Rekognition) **(12/2020)**

Awards

- **Top Talent 2022**: Awarded for exceptional performance and impactful contribution to Rovius Cloud Platform. Promoted to Senior Software Engineer at Persistent Systems. **(05/2022)**