Neha Sawant

California, United States

in linkedin.com/in/nehasawant4/ | 📱408-640-4982 | 🌐 Portfolio | ✉ nsawant@scu.edu | 🞋 github.com/nehasawant4/

Skills

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

Education

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

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

Bachelor of Engineering **Pune University** **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** **04/2024 - Present**

- Led R&D focused on deep learning for intrusion detection in network traffic.
- Utilized Boost libraries for C++ and Python integration and applied Natural Language Processing (NLP) to preprocesses data.
- 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** **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** **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** **11/2020 - 01/2023**

- Engineered Python scripts for integration and unit testing of Rovius Cloud powered by Apache CloudStack.
- Developed server installation scripts in Shell reducing manual efforts by 85%. Integrated automation scripts on GitLab.
- Maintained and improved automation framework on Jenkins decreasing 40% test failures due to framework issues.
- Responsible for regular BVT and Regression tests and debugging issues, leading to a 15% reduction in post-release defects.
- Created Docker containers on Linux VMs and exhaustively tested cloud deployment in Kubernetes clusters.
- Executed performance testing using AWS EC2 instances and VPN, visualized results, and discovered a critical response time issue for an API. After fix, 96% increase in the API performance was observed.
- Led migration of CI/CD infrastructure to new servers, including network reconfiguration and script enhancements in CI/CD pipeline.
- Collaborated with developers and DevOps team to add Rovius Cloud support on Ubuntu and RHEL8.

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 and promoted to Senior Software Engineer at Persistent Systems. **(05/2022)**