Sandeep Salwan

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EDUCATION

Northeastern University

Boston, MA

B.S. Computer Science, Concentration: Artificial Intelligence

Apr 2026

• Relevant Coursework: Java Object-Oriented Design, Java II, Physics 1, AI, Data Science, Discrete Structures, Calculus 3, Systems, Databases, Algorithms, C++ Programming II, Math Reasoning, Cybersecurity, Linear Algebra

TECHNICAL SKILLS

Languages: Python, Java, C/C++, Kotlin, HTML/CSS, TypeScript, Go, SQL, COBOL, JavaScript Tools and Technologies: React, Flask, FastAPI, JUnit, PyTorch, Spring Boot, Git, Docker, Kubernetes, AWS (EC2, S3, Lambda), Azure, Streamlit, LLM, Jupyter, Bash, Jenkins, MariaDB, Pandas, Jira, PyTorch, Scikit-learn, Kali Linux

EXPERIENCE

Scale AI | GenAI Technical Intern

May 2025 - Present

- Advanced SOTA code-reasoning LLMs by employing intricate C++ Olympiad-level problems for fine-tuning & evaluating models in 100+ agentic environments, rigorously benchmarking to elevate generative performance.
- Aided code-reasoning model development through daily evaluations, distilling key insights for the research team.
- Executed 75 targeted red-team missions, uncovering jailbreaks exposing core critical flaws & fortifying AI safety.

Experian | Software Engineer Intern

Jun 2024 - Oct 2024

- Developed data-processing scripts in Spring Boot to merge complex reports and securely encrypt/decrypt data
 using EBCDIC to ASCII and refactored Python modules to Java to improve compatibility, efficiency, and security.
- Converted mainframe COBOL code to AWS, leveraging ETL processes to prepare binary & ASCII data from S3.
- Conducted QA testing for 2 data processing app releases to ensure precision and accuracy, using Jenkins & JUnit for CI/CD automation and collaborating with teams to refine requirements, accelerating project delivery by 15%.

Browser Use (YC W25) | Fullstack Engineer Intern

Apr 2025 – May 2025

- Architected asynchronous browser automation infrastructure using Python, Playwright, and Pydantic to enable LLM-driven DOM interaction, vision-based element parsing, enhancing AI agent autonomy in intricate web tasks.
- Resolved 3+ daily bugs and managed 350+ GitHub issues, deploying Python fixes, demos, and key enhancements.
- Built contextual memory systems for AI agents, bolstering persistence in complex multi-step web automations.

Keploy | API Fellow

Apr 2025 – Apr 2025

• Engineered API test protocols using eBPF for traffic capture within a GSoC community (selected from 18.5k+ applicants), orchestrating contributions via Git to automate test and mock generation for real-world applications.

CreditCliq | Backend Engineer Intern

Jul 2023 - Sep 2023

- Designed, deployed, and maintained back-end processes using Docker for containerization and JVM tuning to improve memory allocation, resulting in smoother application performance and efficient resource utilization.
- Appointed as the Team Leader for eight college students and delegated tasks to interns for group assignments.
- Cut payment transaction time 30% via SQL & Redis optimization, enhancing DB indexing & query efficiency.

CrowdFundYourFees | Software Developer Intern

Jul 2022 – Sep 2022

- Worked closely with leading senior engineers to enhance the front-end using React, improving load times by 20%.
- Proposed and designed alternate software design patterns to optimize existing code structures utilizing Figma.
- Scripted and executed code within production development & built the main landing page for rapid user input.

Projects

AIMessage • Next.js, React, TypeScript, Prisma, MySQL, Tailwind CSS, NextAuth.js

Jan 2025

• Engineered a full-stack NLP messaging platform with Next, TypeScript, & Prisma; implemented secure NextAuth OAuth, achieving message delivery under 90ms via optimized MySQL queries & Pusher data synchronization.

AnimalCare © Sam2, OpenCV, Jupyter, Python, Flask, React, REST API

Aug 2024

• Built an OpenCV REST API for 1-shot object detection, analyzing video frames for animal ailment diagnostics.

CERTIFICATIONS & HONORS

AWS Certified Solutions Architect & Cloud Practitioner | Java Developer (Psight) | Machine Learning (Andrew Ng) – **T2** - Merritt College Hackathon | **T10** - AI Agents Hackathon | Chess (FIDE A-Class) | **T3** - Hack the Hub (Ireland)