Sandeep Salwan

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EDUCATION

Northeastern University

Boston, MA

B.S. Computer Science, Concentration: Artificial Intelligence

Apr 2026

• Relevant Coursework: Java OOD, ML & Data Mining, AI, Java II, Discrete Structures, Calculus 3, Databases, Operating Systems, Algorithms, NLP, C++ II, Math Reasoning, Computation Theory, Linear Algebra, Cybersecurity

TECHNICAL SKILLS

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

Experience

Scale AI | GenAI Technical Intern

May 2025 - Present

- Advancing 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.
- Aiding code-reasoning model development through daily evaluations, distilling key insights for the research team.
- Execute targeted red-team missions (75 to date), uncovering jailbreaks exposing critical flaws & fortifying AI safety.

Experian | Software Engineer Intern

Jun 2024 - Dec 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

Mar 2025 - Mar 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.
- $\bullet \ \ {\rm Appointed} \ \ {\rm as} \ \ {\rm team} \ \ {\rm Leader} \ \ {\rm for} \ \ {\rm eight} \ \ {\rm college} \ \ {\rm students} \ \ {\rm and} \ \ {\rm delegated} \ \ {\rm tasks} \ \ {\rm to} \ \ {\rm interns} \ \ {\rm for} \ \ {\rm group} \ \ {\rm assignments}.$
- 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 ② 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)