

Jayani Sivakumar

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CAREER OBJECTIVE

Computer Science student with experience in backend development, full-stack applications, and AI research, seeking full-time software engineering roles. Skilled in building reliable, user-centered software and applying AI to solve meaningful problems.

EDUCATION

North Carolina State University, Raleigh, NC

B.S., Computer Science | GPA: 3.98

Expected May 2027

- Achievements: Dean's List, Grand Challenge Scholars Program
- Courses: SW Development Fundamentals, Data Structures & Algorithms, Operating Systems, SW Engineering, SW Product Management, C Fundamentals, Automata Theory, Trustworthy AI, Human-AI Interaction, Generative AI, Senior Design

TECHNICAL SKILLS

Languages & Databases: Python, Java, C, JavaScript, HTML, CSS, R, SQL (PostgreSQL, MySQL, IBM DB2), MongoDB

Frameworks & Tools: OpenAI, React, Spring Boot, Docker, Jenkins, Git, REST APIs, Cloud Platforms (AWS, Azure)

Concepts: MLOps, CI/CD, Data Structures & Algorithms, API Integration, AI Agents, Software & Performance Testing, Agile

CERTIFICATIONS

Microsoft Certified: Azure AI Fundamentals (AI-900)

Databricks Fundamentals

Docker Foundations Professional Certificate



WORK EXPERIENCE

Fidelity Investments, Software Engineering Intern, Durham, NC

June 2026 – Aug 2026

- Modernized identity and authorization workflows by integrating 2 enterprise APIs alongside a legacy lookup, enabling concurrent validation while preserving 4 CRUD operations.
- Built an end-to-end agentic AI performance testing workflow that reduced manual test-analysis time by 78% and automated 5 stages from hypothesis generation to actionable recommendations.
- Designed a flow-aware skill, enabling automated JUnit coverage, design, and documentation updates across 10 flows.

AI Research Intern, Game2Learn Lab, NC State University

May 2025 – Dec 2025

- Engineered a Python-based evaluation framework for improving AI teaching assistant reliability for computing by 50%.
- Developed an automated inter-rater pipeline, achieving a ≥ 0.75 reliability threshold across 7 instructional dimensions.
- Optimized LLM output through Direct Preference Optimization (DPO) and enhanced Retrieval-Augmented Generation (RAG) refinement, improving system accuracy and resilience by 50% through expert-aligned feedback loops.

PROJECTS

Performance Testing AI Agent | OpenAI, Python, RushHour, Datadog, AI Agents, MongoDB

June 2026 – Aug 2026

- Engineered an agentic testing suite that cut manual analysis time by 78% through automated, evidence-based evaluation.
- Created configurable application profiles to support reusable performance analysis across applications and teams.
- Automated 5 stages, from hypothesis generation and metric collection to analysis and recommendations.

WolfCafe Coffee Ordering System | Java, Spring Boot, Node.js, TypeScript, React, Vite, MySQL

Jan 2026 – May 2026

- Developed a full-stack coffee ordering web app with role-based workflows for customers, staff, and administrators.
- Built and integrated REST APIs for order placement, staff fulfillment, pickup status updates, and order history.

Client-Server Puzzle System | C, POSIX, IPC, TCP/IP

Aug 2025 – Dec 2025

- Developed a multithreaded client-server system in C using message queues for inter-process communication (IPC).
- Improved IPC for 40% faster request handling and strengthened fault tolerance under load.

LEADERSHIP EXPERIENCE

Student Engagement Lead, Women in Computer Science

Aug 2023 – Present

- Organized inclusive tech events and initiatives that grew new member participation by 40%, strengthening engagement and community impact.