

# Keshav Verma

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## EDUCATION

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**University of Massachusetts - Amherst** | Amherst, MA

**B.S. in Computer Engineering with Minor in Mathematics** | GPA: 3.93/4.0

**Graduating May 2026**

**Relevant Courses:** CS Algorithms, Advanced Algorithms, Data Structures, C Programming, Security Engineering, Computer Architecture, Probability and Statistics, Linear Algebra, ML Hardware, Supervised ML, Learning Algorithms

## TECHNICAL SKILLS

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**Programming Languages/Databases:** Java, Python, C, C++, JavaScript, Go, SQL, MongoDB, x86, RISC-V

**Software & Tools:** React.js, Next.js, RestAssured, Git, Flask, Axios, Jupyter Notebook, Postman, PowerBI, Excel

## WORK EXPERIENCE

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**Dell Technologies** | Software Engineering Intern | Hopkinton, MA

**May 2025 - August 2025**

- Developed crawling CLI with Agentic AI capabilities to autonomously interpret ticket context, select relevant diagnostic steps, and execute resolutions, reducing ticket resolution time from 2 hours to under 1 minute.
- Enabled low-latency diagnostics by implementing multithreaded execution of troubleshooting steps across multiple IP addresses, accelerating resolution speed by up to 6x for large tickets.
- Engineered a fallback mechanism for CLI to handle unsupported tickets by dynamically retrieving contextual data from knowledge base, ensuring uninterrupted resolution workflows and reducing escalation rates
- Improved Agentic AI reliability by prompt engineering and agent reconfiguration, resulting in a 35% reduction in overall hallucination rate and significantly increasing the accuracy of ticket resolutions.

**BUILD UMass** | Software Developer | Amherst, MA

**September 2024 - May 2025**

- Designing and implementing an application leveraging ChromaDB, Python Flask, and React Native, enabling girls in India to access resources, ask questions, and seek help efficiently.
- Built a RAG pipeline to secure chatbot answers to verified safety resources, cutting hallucinations by 40%, and boosting retrieval accuracy across 3 different Indian languages.

**UKG** | Software Engineering Intern | Lowell, MA

**May 2024 - August 2024**

- Converted Selenium UI tests to Java API tests, leveraging TestNG and RestAssured for efficient and faster test execution, resulting in an average 22% reduction in nightly automation runtime and raised test success rate by 1.3x.
- Developed a fully functional AI tool using internal data to accurately interpret company-specific questions and suggest colleagues with similar past questions, placing top 5 in a coding challenge with 150+ submissions.
- Collaborated within an Agile Scrum team, primarily developing in Java, to address and resolve customer and internal defects, reducing backlog by 20%.

## PROJECTS

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**MapleSense** | [ Go, Next.js, Python ]

**September 2025 - Present**

- Designing end-to-end IoT monitoring platform using Raspberry Pi sensor nodes and a Go-based ingestion service, enabling real-time collection and processing of sap level, temperature, and battery levels across many distributed devices.
- Built a responsive Next.js web dashboard with role-based access that visualizes live sensor data and historical analytics, improving system observability and allowing Maple Sap farmers to track sensor health and environmental trends in near real time.

**Spotify Song Recommendation App** | [ React, Axios, Python Flask, RoBERTa ]

**Summer 2023**

- Predicts emotion scores from inputted text, maps scores to song characteristics, and uses Python's Spotify API to generate the 3 most relevant song recommendations.

**Message Simulator** | [ C ]

**Spring 2024**

- Built a multi-process messaging system in C using forks and unidirectional pipes, with fixed-size 128-byte framing to prevent partial reads, concatenation, and blocking.