

# Shruti Varade

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## SUMMARY

**Full Stack Software Engineer** with **over 5 years of experience** delivering **end-to-end web and cloud solutions**. Proficient in **Java, Fast API and JavaScript/TypeScript**, designing **scalable, serverless AWS architectures** and expertise in **multithreading, systems design, and debugging**.

Experienced in **AI/ML integration**, building **RAG pipelines**, leveraging **LLMs, Vector DB** for my next **Agentic AI application**, and tools like **Cursor** for improving productivity. I am currently prototyping a custom AI-powered application to automate complex engineering tasks.

## EXPERIENCE

### Full Stack AI Platform Engineer [Early-stage Startup]

March 2025 - Present

Curvepoint.ai

Boston, MA, USA

- Designed and deployed a scalable, highly available, serverless **AWS backend (RESTful API, Lambda, Kinesis, S3, DynamoDB, Web Sockets)** to ingest over **~21,600 ML model outputs per hour from Runpod** and stream actionable insights to the frontend for analytical purposes.
- Helped secure **\$1 M in pre-seed funding**, enabling rapid expansion of our MVP and accelerated go-to-market for camera-free safety solutions.
- Worked at a **fast-paced startup environment** on Wi-Fi based user interface using **React, NodeJS, Vercel** enabling real-time, privacy-preserving threat detection in schools via passively interpreting **Wi-Fi sensing technology**—no cameras or wearables required.
- Developed and maintained **infrastructure-as-code** using **SST (Serverless Stack Toolkit)** to build new things from **0-1 quickly**, accelerating cloud migrations by **~60% (using “write-once, deploy-everywhere”)** and improving resource maintainability for the existing AWS infrastructure.

### Software Engineer

July 2024 - November 2024

Massachusetts General Hospital – Harvard Medical School [Health Tech]

Boston, MA, USA

- Developed a **3D visualization tool** using **Typescript** to display the Brain MRI data for Neural Connections on the web browser.
- Reading and understanding the **legacy code** to add additional feature to the existing platform.
- Reduced the time to fetch 1GB of data from **AWS Cloud** from 15 seconds to about 3 seconds, achieving an **80.91% improvement**.

### Software Engineer (AI/ML)

May 2023 – March 2025

Machine Psychology Lab, University of Massachusetts, Boston [Health Tech]

Boston, MA, USA

- Developed Boostlet.js, a **JavaScript library** enables real-time **AI/ML** processing of medical images in web browsers, created a comprehensive solution supports various data formats (e.g., EEGs, ECGs, X-rays, MRIs, and CTs).
- Designed a feature for image segmentation, data visualization, and integration with **Hugging Face’s machine-learning models** to enhance existing medical image processing libraries with client-side processing capabilities.
- Improved teamwork and iterative development processes using **Git** for Version Control, **NodeJS** for backend development, **GitHub Actions** for test automation and **Submodules** for external library integration.

### Software Engineer

Sept 2020 - June 2022

TATA Group

Mumbai, India

- Implemented a clean and simple full stack recommendation platform following **microservices based architecture** with **React** as frontend framework, **Spring Boot** for developing a **Java microservices** for user management, analytics and recommendation engine.
- Implemented **JSON-based user data storage** with in-memory session handling and **RESTful APIs** for frontend-backend data exchange.
- Used transport layer like **http**, containerized using **docker** and orchestrated with **docker compose** for local development and integration.
- Established a testing protocol, **JUnit and Jest for unit testing**, and **python for integration testing** to validate workflows across the application.

## EDUCATION

### Master’s Degree of Science in Computer Science

Sept 2022 - May 2024

University of Massachusetts, Boston | GPA 3.9/4.0 (Teaching Assistant)

Boston, MA

## PROJECTS

(Code Assistant) Continuous chat bot running in terminal using **Agentic AI** - OpenAI API, chain of thought for reasoning

**RAG app that indexes the given pdf doc and performs vector search** - Tokenizer, Vector Embedding, LangChain, Vector DB Qdrant

**Matching Researchers with Students via Machine Learning deployed Web App** - Python, Natural Language Processing, Streamlit.py, LLM, AI

**An app that prevents race conditions and deadlocks** - Java, Design patterns, Multithreading, Memory Management, Stream API

**Health Monitoring web dashboard to display graphs and charts** - Python, Django – MVT architecture, Chart.js, Postgres SQL

## SKILLS

**AI Skills:** LLM, RAG, Qdrant, Tokenization, Vector Embeddings, Vector DB, LangChain, LangGraph

**AI Tools:** OpenAI API, ChatGPT, Claude, Perplexity, Cursor, GitHub Copilot, Midjourney, NotebookLM, Zapier, Make.com, n8n,

**Frontend:** HTML, CSS, JavaScript, Jest, TypeScript, React.js, Next.js, MUI, ECMAScript, Restful APIs, WebGL, SEO, Sanity, Prisma ORM, Redis

**Backend:** Java, Android, JUnit 5, Apache Ant, Gradle, Tomcat, Python, Django, Express, Node.js, C++, REST API, JSON, HTTP, Docker, Linux

**Databases:** SQL, MySQL Relational, Postgres NoSQL, GraphQL, MongoDB, Cloud Computing – Amazon Web Services, Kafka, RabbitMQ

**Tools:** AI/ML, Git, GitHub, Postman, CI/CD pipeline, Agile Methodology, SDLC, Data Structures and Algorithms, MATLAB