

VARUN BHARATHI JAYAKUMAR

FULL STACK ENGINEER

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Education

Northeastern University — Boston, MA

August 2024

Master of Science in Software Engineering Systems — GPA: 3.8

Certifications: [AWS Solutions Architect Associate \(March 2027\)](#), [AWS Certified Cloud Practitioner \(March 2027\)](#)

Vellore Institute of Technology — Vellore, India

April 2022

Bachelor of Technology in Electronics and Communication Engineering

Experience

Cohere Health

September 2024 – Present

Software Engineer - full-time

- Build scalable data pipelines for Real-Time Loading (RTL), enhancing data availability and real-time decision-making
- Developed Elasticsearch data pipelines to boost product search capabilities and enable faster data retrieval

Cohere Health

June 2023 – December 2023

Software Engineer Intern

- Built 12+ features for healthcare product designed to streamline the process of collecting and tracking prior authorization requests from providers. Tailored solutions to meet the specific needs of various health insurance companies using React and Grails - UM space
- Automated daily data back-fill via scheduled job, cutting a week-long task for 250K records into daily job, boosting time by 85%
- Standardized PDF output across platforms by adding specific fonts in the Dockerfile, ensuring 100% consistency while rendering
- Migrated backend from Grails 4 to 5, cutting compatibility issues by 30%, easing transition, and enabling smoother traffic redirection
- Automated manual e2e smoke tests implementing automated solution with Cypress, saving 10 hours developer time per week

Waveus Network

April 2021 – July 2021

Software Engineer Intern

- Designed and built responsive front-ends with React, improving usability and cutting UI feature delivery time by 20%
- Implemented lazy loading, static assets caching and optimized HTTP requests to improve web-page performance by 23%
- Integrated website performance monitoring tools (Google PageSpeed Insights, Lighthouse) to enable webpage performance logging

Technical Skills

Programming Languages: Java, Python, Groovy, JavaScript, TypeScript

Frontend / Backend: HTML, CSS, React, NextJS, Redux, Cypress, Jest, Node.js, Grails, Spring Boot

Cloud / Database: AWS, GCP, Terraform, Packer, CI/CD, Docker, Linux, PostgreSQL (SQL), Pinecone (vectorDB), MongoDB(NoSQL), Redis

Developer Practices: Agile, Software Development Lifecycle (SDLC), Git, Automated testing, Unit test, Code review, Test-driven development

Relevant course work: Object-Oriented Design (OOD/OOP), Data Structures, Algorithms

Recent Projects

Viewing Recommendation system with RAG based LLMs — [LangChain](#), [LangSmith](#), [Vector DB](#), [LLM](#), [Python](#) [Github](#)

June 2024

Developed chatbot using RAG, LangChain, and vector databases to efficiently handle movie recommendation queries in natural language

MultiZone Cloud Deployment — [Terraform](#), [GCP](#), [CI/CD](#), [Packer](#), [Node.js](#) [Github](#) [Webpage](#)

April 2024

Orchestrated web app with CI/CD (Github Actions), Terraform, rolling-updates improving deployment efficiency and resiliency to failure

MealTrain - Food Order - Tracking — [NextJS](#), [AWS](#), [REST API](#), [Node.js](#), [MongoDB](#), [Javascript](#), [CSS](#) [Github](#) [Webpage](#)

December 2022

Implemented end-to-end full stack cross-browser app with NextJS, menu views, food orders, and tracking, improved performance by 10% with S3

Leadership and Organizational Roles

Lead TA for Web Design and User Experience (Spring 2024) — Northeastern University

- Led a team of 4 TAs, fostering collaboration, effective communication, and teamwork while assisting students with grading, addressing doubts, and guiding projects, demonstrating strong leadership, problem-solving, and interpersonal skills.

Vice Chairperson, IEEE TEMS — Vellore Institute of Technology

- Organized weekly workshops and monthly events, demonstrating leadership and organizational skills on emerging technologies