

# Sudharsan Ragavendhiran Anuradha

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## EDUCATION

**Northeastern University, Boston, United States** - *Master of Science, Computer Software Engineering* **Dec 2024**  
Relevant Coursework: Data Structures & Algorithms, Web Development, Generative Ai, ML

## EXPERIENCE

**Software Engineer Co-op, Philips North America LLC, Cambridge, United States** **Jan 2024 - Dec 2024**

- Built a **generative AI chatbot** using **Python**, improving customer support efficiency by providing tailored configuration guidance for PIC iX Patient Monitoring.
- Migrated legacy codebase to **React**, integrating dynamic UI features like **mega menu** and enhancing usability
- Refactored **React** code using **Higher-Order Components (HOCs)**, enhancing code reusability and readability by 15%

**Software Engineer, Element 5, Inc.** **Jun 2020 - Jun 2022**

- Built **REST APIs** with **Spring Boot** for managing Single Sign On using **OpenID Connect**, improving authentication reliability
- Optimized workflow automation deployment portal performance with **lazy loading and Webpack**, reducing page load times by 25%
- Achieved 85% test coverage by writing robust unit tests with **Mocha and Jest**, reducing bugs by 40%
- Engineered a state-of-the-art internal scratchpad tool using **Node.js, Express.js, MongoDB, Redis and Elasticsearch**; streamlined data storage for automation processes across multiple applications

## PROJECTS

### Receipt Rewards Processing System

- Built a high-performance receipt rewards API using **Go, Redis, PostgreSQL, and Kafka**, ensuring efficient point calculations.

### GenAi Resume Generator

- Developed an AI-powered **RAG** application utilizing **Python, Streamlit, and OpenAI GPT-4** to dynamically tailor resumes based on specific job descriptions, ensuring increased relevance to target roles

### Serverless Portfolio Website with AWS

- Designed and implemented a serverless portfolio application using AWS services, including **S3, Lambda, API Gateway, DynamoDB, and CloudFront**, to deliver a scalable and highly available web solution
- Automated infrastructure provisioning and updates with **Terraform**, ensuring efficient deployment and version control for backend services
- Enhanced user experience with a secure and fast content delivery setup using **AWS Certificate Manager** for SSL, **CloudFront** for caching, and **Route 53** for domain management

### GenAi Applicant Screening

- Developed an ATS **RAG** application using **Python and OpenAI GPT-4**, automating resume evaluation with summarization and scoring capabilities using Large Language Models

### Insurance Plan Web application

- Built a scalable web application using **Java Spring Boot**, incorporating **Redis** for caching, **Elasticsearch** for efficient object retrieval, and **RabbitMQ** for message queuing

### Real-Time Collaborative Notepad

- Built a collaborative notepad web application allowing unlimited users to simultaneously edit documents, using **WebSockets** for real-time updates and a **React + Node.js stack**

### Homefront Harvest - Food Subscription Application, [Link](#)

- Created an intuitive and user-friendly **Figma prototype** for a meal delivery app, focusing on an engaging and functional design
- Developed features to streamline meal subscription and enhance user satisfaction

## SKILLS

Programming	: JavaScript, TypeScript, Java, Python, Go
Web Development	: HTML, CSS, Node.js, React.js, Next.js, Redux, Tailwind, Material-UI, AngularJS
Backend	: Spring Boot, MySQL, MongoDB, Postgres, Hibernate, Redis, RabbitMQ, GraphQL, DynamoDB, Kafka, SQL, NoSQL
Cloud	: AWS, Docker, EC2, ECS, AWS Lambda, Amazon S3, API Gateway, Route 53, Azure DevOps, GCP
Tools	: Git, Jira, Swagger, Kibana, Github Actions, Shell, Postman