# Aishwarya Venkatesan

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EDUCATION

Northeastern University, Boston, MA

Boston, MA

Master of Science - Information Systems

Expected May 2024

Mobile: +1 (857)-390-5852

Courses: Web Design & User Experience Engineering, Programming Structures and Algorithms, Network Structures and Cloud Computing

Anna University,

Chennai, India

 $Bachelor\ of\ Technology\ \hbox{--}\ Information\ Technology$ 

July 2016 - April 2020

Email: venkatesan.ai@northeastern.edu

SKILLS SUMMARY

• Languages Java, Javascript, TypeScript, C, SQL

• Frameworks Spring Boot, Sequelize, Mockito, JUnit, Bootstrap, jQuery

• Web Technology React.js, HTML5, CSS3, SCSS, Express.js, Node.js, Winston logger

• Other Tools Bitbucket, Git, JSON, REST, Maven, Jenkins, OpenShift, Docker, SonarQube, Pulumi, Swagger,

Elasticsearch, Kibana, Packer, ServiceNow, MongoDB, Jira, Postman, MySQL, IntelliJ

• Cloud Platform EC2, VPC, RDS, Route53, CloudWatch, AWS Lambda, Amazon SES, GCP

EXPERIENCE

## Barclays - US Consumer Banking

Java Developer (Full-time)

Chennai, India

August 2020 - August 2022

- Created customer-facing REST APIs with Spring Boot and OAuth for consumer cards, achieving a 70% increase in test coverage using Junit and Mockito in alignment with partner requirements for reward points redemption
- Implemented microservices, set up CI/CD pipelines in Jenkins, managed deployments on OpenShift, and utilized AppDynamics for performance monitoring, leading to streamlined operations and heightened application reliability
- Utilized the Veracode tool to analyze code vulnerabilities, resulting in an increase in code scan report scores from 75 to 99
- Fixed data synchronization issue in a batch job, by conducting detailed analysis to identify the root cause, modified database queries to ensure successful batch execution
- Collaborated with cross-functional teams in an Agile environment to successfully deliver high-quality projects within tight deadlines, adhering to software best practices

#### Projects

- Serverless webapp in multi-cloud (Tech: Node.js, AWS, Pulumi, GCP) September 2023 December 2023
  - Developed a web application that leverages RESTful APIs and incorporated advanced authentication and authorization features, all within a GitHub repository
  - Established CI pipelines using GitHub Actions following shift left principles, created an Amazon Machine Image (AMI) with a Debian source image, provisioned the web application artifact within the AMI, and configured automatic startup using systemd
  - Streamlined AWS service creation using Pulumi for Infrastructure as Code, automated webapp deployment on an EC2 instance via AMI generated from integration pipeline and established RDS database deployment. Configured AWS components including IAM policies, roles, VPC, Route53, and CloudWatch, while hosting the application on a custom domain
  - Facilitated email communication through Amazon SES utilizing AWS Lambda with SNS triggers, tracked email status with DynamoDB and managed file storage on GCP buckets
- YouTube Clone (Tech: MERN stack)

March 2023 - April 2023

- Launched a video streaming website powered by React.js and Express.js, allowing users to upload, view, and share media content. Leveraged MongoDB for real-time capture and management of essential video data
- Designed secure RESTful APIs with JWT token authentication to facilitate protected user interactions and ensure data confidentiality
- Created interactive web pages with multiple components using HTML5, CSS3, and JavaScript technologies, delivering a responsive and engaging user interface to enhance the overall user experience

### • Traveling Salesman Problem Optimization

March 2023 - April 2023

- Addressed the NP-hard traveling salesman problem challenge for 530 locations by implementing the Christofides algorithm and leveraging advanced data structures for efficient route optimization
- Applied optimization techniques such as random swapping, 2-opt, simulated annealing and ant colony, resulting in a 35% reduction from the initial tour value

## • Healthcare data management

December 2019 - March 2019

- Streamlined process for validating patient information through secure electronic health record implementation
- Enhanced protection and verification of patient information by establishing replicated blockchain infrastructure