

# MAMATHA IRUVARAM

+1 (571) 604-2697 | miruvaram@gmail.com | Virginia, USA | linkedin.com/in/mamathairuvaram | mamatha1607.github.io/mywebsite/

## EDUCATION

**George Mason University**  
*Master's, Information Systems*

**August 2023 - May 2025**  
*GPA: 3.9*

**Jawaharlal Nehru Technological University**  
*Bachelor's, Computer Science*

**August 2017 - July 2021**

- Relevant courses: Data structures, Design and analysis of algorithms, Object oriented application and design

## SKILLS

**Programming Languages:** Java, Python, JavaScript, TypeScript, C, C++

**Frontend Development:** AngularJS, Bootstrap, Vue.js, React.js, HTML, CSS

**Backend Development:** Node.js, Express.js, REST APIs, JWT, Bcrypt, springboot, Servlet/JSP

**Testing & Quality Assurance:** JUnit, TestNG, Selenium, Mockito, Postman, Manual Testing, Automated Testing, Code Reviews

**DevOps & Tools:** Git, GitHub, Jenkins, Maven, IntelliJ, Visual Studio Code, Eclipse

**Database and storage Technologies:** MySQL, PostgreSQL, MongoDB

**Cloud & Deployment:** Microsoft Azure, Docker, AWS(S3,EC2), GCP

## PROFESSIONAL EXPERIENCE

### Cognizant

*Programmer Analyst (Full-Stack Development & Test Automation).*

*December 2021 - June 2023*

- Designed and developed backend features and RESTful APIs in Java, integrating with databases and third-party services to support enterprise-grade functionality, while handling over 100K+ daily requests.
- Contributed to architecture design discussions, applying object-oriented principles to build modular and scalable solutions within a microservices environment.
- Built robust automated test frameworks using Selenium WebDriver, JUnit, and Java, automating 300+ end-to-end test cases and ensuring 100% regression coverage across deployments.
- Integrated continuous testing workflows into CI/CD pipelines using Jenkins, Maven, and GitHub, reducing manual QA effort by 70% and enabling faster, safer releases.
- Debugged and resolved production-level defects through log analysis, metrics review, and root cause investigation, improving release quality and customer satisfaction.
- Actively participated in Agile Scrum processes, contributing to 20+ sprint cycles, story point estimation, backlog refinement, and user story validation alongside cross-functional teams.
- Collaborated closely with product managers and frontend engineers to deliver customer-facing features that improved performance and usability.
- Followed SDLC best practices, including code reviews, version control, and peer programming to ensure high-quality code and team alignment.

## PROJECTS & OUTSIDE EXPERIENCE

### Student Survey Application

*Technologies: Angular, Node.js, Spring Boot, MySQL, RESTful APIs, HTML, AWS, Azure.*

- Built a full-stack survey platform using Angular (TypeScript) and Spring Boot, delivering a responsive UI and processing 5,000+ survey responses with 40% improved backend efficiency.
- Developed and secured RESTful APIs with role-based access control and integrated a MySQL backend for reliable data storage.
- Deployed application on AWS EC2 and S3, achieving 99.9% uptime and scaling to 1,000+ concurrent users with 35% faster data retrieval; explored cross-cloud deployment via Azure.
- Engineered a seamless frontend-backend data flow using Angular services and REST APIs, enhancing user experience and system integrity.

### Loyalty Program Management System

*Technologies: Java, Spring Boot, Servlets, JSP, SQL, MySQL, JDBC, Android Studio, Apache Tomcat, RESTful APIs*

- Developed backend services in Java and Spring Boot for a customer rewards system, with data integration across MySQL and Oracle for secure transaction handling.
- Designed and optimized RESTful APIs for authentication, redemption, and rewards tracking, reducing API response time by 20%.
- Connected backend to Apache Tomcat and built a real-time mobile interface using Android Studio and Retrofit, supporting 1,000+ active users.

### Collaborative Task Manager

*Technologies: React.js, Bootstrap, Node.js, Express.js, PostgreSQL, React Router, Axios, JWT, bcrypt.*

- Built a React.js + Node.js full-stack application supporting real-time task management for 100+ concurrent users with PostgreSQL backend.
- Developed secure authentication flows using JWT and bcrypt, reducing vulnerabilities by 95% and adhering to security best practices.
- Created 10+ API endpoints with Express and optimized query performance by 30% through SQL tuning and async operations.

### Automated E-Commerce Website Testing

*Technologies: Selenium WebDriver, TestNG, Java, Maven, Jenkins, GitHub, JIRA*

- Automated core user flows (login, search, cart, checkout) using Selenium WebDriver, Java, and TestNG, ensuring 100% functional coverage.
- Applied the Page Object Model (POM) and integrated tests into Jenkins CI/CD pipelines via Maven, reducing manual QA effort by 70%.
- Managed version control with GitHub and tracked 25+ bugs using JIRA, driving timely defect resolution with detailed root cause analysis.