

SRILATHA MADDINENI

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EXPERIENCE

Software Engineer | Arthrex, Florida

Feb 2025- present

- **Developing front-end features using React** and **microservices with Spring Boot**, enabling secure and efficient data exchange for **applications handling 1,000+ concurrent users**.
- **Optimizing PostgreSQL queries with Spring Data JPA**, improving data retrieval speed by **25–30%** in high-volume workflows.
- **Implementing CI/CD pipelines with GitHub Actions, Jenkins, and Docker**, reducing deployment time by **40%** and ensuring consistent releases across environments.

Research Assistant | George Mason University, Fairfax, VA

Feb 2023-Dec 2024

- Contributed to GeoWeaver, an open-source data workflow platform, implementing frontend features with **Angular, TypeScript, and Tailwind**, optimizing UI responsiveness and page load times by **30%**.
- Developed backend services with **Node.js** and **Express**, creating **REST APIs** and integrating with **MongoDB** for secure and efficient data storage.
- Implemented unit and end-to-end testing with **Jest and Cypress**, conducted code reviews, and applied **CI/CD practices** to ensure seamless integration across frontend, backend, and database layers.

Associate Software Engineer | United Health Group, Hyderabad, India

Jun 2021-Dec 2022

- Developed an end-to-end automation testing framework for a web application using **Selenium, Cucumber, Java**, and **Postman** for **API validation**, which reduced **80%** of manual testing effort and improved overall test coverage and reliability.
- Involved in the complete **software development life cycle**, from gathering user requirements and development to testing and deployment, following **Agile** methodology.
- Utilized Spring Data **JPA** to integrate with **MySQL** database, reducing data retrieval times by **30%**. Developed **RESTful APIs** using **Java Spring Boot**, enabling seamless communication between front-end and back-end systems with an **MVC** architecture.
- Key Contributor in the migration of Internal Jobs, Online Portal & Microservices from On Premise to **Microsoft Azure Cloud**. It was a lift and shift of **DB2 to PostgreSQL, Unix to Linux** server.

Software Engineer Intern | Sahakar Solutions, Hyderabad, India

Jun 2020-May 2021

- Developed a cross-platform mobile application using **React Native and PHP** to store and manage patient records, providing healthcare staff with 24/7 mobile access.
- Integrated MySQL database with PHP backend, handling 500+ test records with secure storage and improving retrieval speed by 25% during testing.
- Implemented RESTful APIs and authentication mechanisms, ensuring seamless communication between front end and backend while maintaining data integrity for all users.

ACADEMIC PROJECTS

Cloud Mart

Mar 2025

- Built cloud-native e-commerce platform with **React, Node.js, Terraform, EKS, Lambda, Code Pipeline, DynamoDB**, Amazon Bedrock, serving 1000+ users.

Blog Platform with Security

Jan 2024

- Developed full-stack **blog platform** using **React, JavaScript, Spring Boot, Hibernate, Spring Security, JWT, PostgreSQL, Docker** and **REST APIs**, improving secure content management by **30%**.

Human Activity Recognition

Dec 2020

- Implemented a **smartwatch-based Human Activity Recognition system** using **accelerometer data, GPS, SVM, Random Forest, and ANN**, achieving **95% classification accuracy** for daily physical activities.

TECHNICAL SKILLS

Programming Languages and Databases: Java, C/C++, Python, JavaScript, MYSQL, MongoDB.

Cloud Technologies/Containerization: AWS (S3, EC2, Lambda, RDS), Microsoft Azure, Kubernetes, Docker.

Web Technologies: HTML, CSS, JavaScript, Typescript, Bootstrap, React JS, Tailwind, Spring Boot, Node.js, Junit, Mockito.

Tools/Frameworks: Selenium, Cucumber, MySQL, PostgreSQL, Git, VS Code, Postman, IntelliJ, Eclipse, Postman.

Web Services and Data Formats: SOAP, REST, XML, JSON.

Machine Learning Models: KNN, Random Forest, Naïve Bayes, BERT, Sentence Transformer, Word2Vec.

Data Analytics: Matplotlib, NumPy, Pandas, Seaborn, Scikitlearn, Jupyter Notebook, NLTK, scikit-learn.

EDUCATION

Master's in Computer Science: George Mason University

Jan 2023-Dec 2024

Bachelor's in Information Communication and Technology: SASTRA University, India

Jun 2017-May 2021