# Murali Tanneru

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## Skills

**Languages**: Java (Core & Advanced), Python
**Web Tech**: Spring Boot, Fast API, React JS, HTML, CSS
**Cloud & Tools**: AWS, GCP, Kubernetes, Docker, Jenkins
**Databases**: SQL, PL/SQL, Cassandra, MySQL, PostgreSQL, MongoDB
**Design Patterns**: Software design principles and architecture
**Testing & Automation**: JUnit, TestNG, Selenium, Postman, REST-assured, SonarQube, JaCoCo, Splunk
**Domains**: Machine Learning, Deep Learning, NLP, Big Data, Cloud Computing, OS, CN
**DS & Algo**: Arrays, Strings, Graphs, Linked Lists, Trees, DP, Greedy, Sorting, Searching, Complexity

## Work Experience

**Datcis Inc, IL, USA**                                                                              **Sep 2024 – May 2025**
Software Developer
- Designed scalable microservices using Java, Spring Boot, and Spring Cloud (Eureka, Config, Load Balancer), integrated automated JUnit/TestNG unit tests, and optimized backend performance with efficient data structures, Spring WebClient, and automated API validations using Postman and REST-assured.
- Applied AI-driven analytics in test execution monitoring and reporting tools to identify high-risk areas, enabling automated test prioritization and early defect detection during software delivery cycles.
- Integrated multiple AWS services (EC2, S3, Lambda, EKS, ECS, DynamoDB, SQS, SNS, CloudWatch) for hosting, monitoring, and environment-based test automation; developed React JS admin dashboards with unit and integration tests using Jest and React Testing Library to validate UI flows.
- Set up CI/CD pipelines using Jenkins, Docker, and GitHub Actions, automating build, test, and deployment workflows; implemented SonarQube for code quality checks, JaCoCo for test coverage, and Zipkin for distributed tracing of automated test executions.

**Ket Systems, GA, USA**                                                                             **Jan 2024 – May 2024**
Software Developer
- Built secure backend modules using Spring Boot and Spring Security, validating business logic with JUnit to achieve high test coverage. Developed React JS dashboards with automated UI tests and integrated AWS Textract and Lambda for automating resume parsing workflows.
- Implemented ML and NLP models for candidate ranking, validating model accuracy using Python test scripts, and enabled fast search capabilities with Elasticsearch backed by automated integration and functional tests.
- Integrated AWS SNS for real-time notifications and tested WebSocket communication using browser automation tools to ensure reliable, end-to-end messaging functionality.

**Tata Consultancy Services, Hyderabad**                                                             **Jan 2021 – Dec 2022**
Software Developer – (USAA Insurance)
- Developed backend services using Java and Spring Boot (MVC, JPA, Security, Cloud), integrating JUnit and Mockito for unit testing, performing API testing using Postman, and working closely with developers to maintain system stability.
- Built and connected React JS components to backend services, applying Agile development practices in cross-functional teams and ensuring seamless integration and robust system performance.
- Designed and executed REST API test cases using Selenium and TestNG, achieving high test coverage with maintainable automation scripts, and analyzed logs and performance issues using Splunk and debugging tools to support faster root cause identification.
- Developed and maintained an integration testing platform to streamline automated test execution and verification across multiple development teams, enhancing coordination, coverage, and deployment confidence.

## Projects

- **Sentiment Analysis and Bias Evaluation (2023):** Applied BiLSTM, RoBERTa, SVM, and logistic regression to the EEC dataset to detect sentiment and identify demographic biases, improving classification performance with hyperparameter tuning.
- **E-Commerce Website (2022):** Built a dynamic frontend with React JS and backend with Spring Boot for secure user authentication, order management, and scalable database operations using Spring Data JPA.
- **Cancer Risk Analysis (2020):** Co-authored a paper using XGBoost and Random Forest on clinical data from Caracas Hospital, achieving 94.19% accuracy and identifying key risk factors. Published in IJCS Vol.8, Issue 4.

## Education

**Illinois Institute of Technology, USA**                                                            **Jan 2023 – May 2024**
M.S. Computer Science, CGPA: 3.7/4.0

**VVIT, India**                                                                                      **June 2016 – Sep 2020**
B.Tech. Computer Science and Engineering, CGPA: 7.97/10

## Certifications [(link)](link)

- Recursion
- Dynamic Programming
- Time Complexity Analysis
- Graph Theory
- Infosys Certification
- Python for Data Science and ML Bootcamp
- PL/SQL Certification
- Spring Boot and Spring Framework