Rajanya Lahiri

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EDUCATION

The Ohio State University, Columbus, USA **August 2024 - June 2026**
Master of Science – Computer Science & Engineering GPA – 3.8/4.0
Coursework: Advanced Operating System, Data Mining, Software Engineering in Artificial Intelligence, Data Visualization, Algorithms

Kalinga Institute Of Industrial Technology, Bhubaneshwar, India **June 2017 – June 2021**
Bachelor of Technology – Computer Science & System Engineering GPA – 8.73/10
Coursework: Database Management System, Computer Networks, Design and Analysis of Algorithms, Data Structures.

SKILLS

Languages & Frameworks: Java, C, C++, Python, HTML, CSS, JavaScript, SQL, Shell Scripting**,** Jupyter, PySpark, Apache Spark
Databases & Tools: IBM DB2, MySQL, Oracle, MongoDB, Postgres, Docker, GitLab, Jenkins, Postman, AWS, Linux, SonarQube, Maven, RabbitMQ, Eclipse, Tableau, Data Warehouse, Data Lake, Tableau
Development Processes & Testing: Agile Methodology, Confluence, Kanban, Jira, Git (Version Control), JUnit, Mockito, SonarQube

PROFESSIONAL EXPERIENCE

THE OHIO STATE UNIVERSITY | Student Graduate Research Assistant Columbus, USA | December 2024 – current
- Conducted data cleaning, preprocessing, and analysis to assess the impact of adverse SDoH on heart failure severity, using multivariable linear regression to adjust for demographic, clinical, and comorbidity, improving understanding of key contributors.
- Performed competing risk analysis in R, assisted in manuscript writing, responded to reviewer feedback, and completed CITI training for research compliance, contributing to successful publication and adherence to research standards.

MERATIVE (Formerly IBM Watson Health) | Software Developer Bangalore, India | September 2023 – July 2024
- Engineered Java microservices and RESTful APIs with core Java, Redis, and async processing, boosting efficiency by 40%, cutting API response times by 30%, enhancing user experience and team collaboration, while accelerating Agile alignment.
- Spearheaded Integration tests and unit test implementation with JUnit and Mockito, achieving 90% code coverage.
- Optimized platform services by leading cross-functional teams and leveraging EC2, RDS, CloudWatch, Elastic Beanstalk, and ECS, reducing infrastructure costs by 25% while ensuring high availability and performance.
- Reviewed code using SonarQube, mentored junior developers on code refactoring, reducing technical debt across projects.

IBM | Software Developer Bangalore, India | July 2021 – August 2023
- Delivered backend enhancements and ensured system compliance for Social Program Management (SPM) software for diverse government agencies, facilitating the distribution of £1.2 billion in benefits through the Disability Payment Program.
- Improved and implemented web services for IBM DB2 interactions by implementing connection pooling and query strategies, reducing execution times by 40% and boosting processing capacity by 20% during peak traffic.
- Streamlined the SDLC by leveraging strong organizational skills to integrate automated testing with Jenkins and Docker, reducing deployment time by 25%, and employing CI practices to shorten build and deployment cycles by 15%.
- Guided teams, fostering collaboration, improving project outcomes through strong communication and interpersonal skills.

IBM | Software Developer Intern (DevOps) Bangalore, India | January 2021 – July 2021
- Automated containerized CI/CD for data pipeline using Docker and Jenkins for automating build, test, and deployment processes, significantly reducing manual intervention and deployment time by 70% and speeding up releases by 40%.
- Implemented Docker, Kubernetes-based orchestration (K8s), and Helm Charts on cloud technologies and infrastructure, enabling scalable deployments and zero-downtime production-ready releases, boosting system availability by 95%.
- Configured Jenkins to send automated messages (e.g., Slack, email, or console logs) based on the SonarQube report.
- Built Jenkins shared libraries and Groovy scripts to automate workflows, reducing build times by 30% and improving scalability with multi-node distribution, which accelerated customer adoption of solutions on IBM Cloud.

HIGHRADIUS CORPORATION | SDE Intern Bhubaneshwar, India | July 2020 – Dec 2020
- Enhanced automated test suites using JUnit and Mockito, improving TDD, increasing test coverage, and reducing manual testing and regression bugs, leading to a 20% faster development cycle.
- Managed and validated complex data solutions as data engineer using SQL, maintaining data integrity and reducing errors by 30%, which prepared accurate analysis and reporting across multiple projects.

PROJECTS

Invoice Management Application | *Python, java, SQL, ReactJS, Dialog Flow, Scikit-learn* April 2020 - June 2020
- Developed an AI-enabled FinTech B2B Sales Invoice Management Application with a machine learning model to predict delays in clearing account receivables based on historical data.
- Deployed the project using Java and JDBC and provided the user Interface.
- Prepared dashboard using ReactJS and provided the user with functionalities like finding first partial payment and integrated chatbot.

Predicting High-Risk Countries for Instability| *Python, Jupyter, Pandas, NumPy, Matplotlib* December 2019 - March 2020
- Built a data science model for risk prediction, leveraging data analytics, predictive models, mathematics for better insights.
- Analyzed dataset of 178 countries over 14 years from the Fragile States Index (FSI) data to detect key indicators of instability, such as economic decline, human rights issues, and uneven development.
- Leveraged advanced problem-solving skills, data modeling, applied Python and machine learning algorithms to achieve 97% prediction accuracy, with Decision Tree Regression emerging as the most effective model.