MANASA BIJJALA

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EDUCATION

THE UNIVERSITY OF SOUTHERN MISSISSIPPI | Hattiesburg, MS **Aug 2023 - Present**
Master of Science in Computer Science | Cumulative GPA: 3.83/4.0

JAWAHARLAL NEHRU INSTITUTE OF TECHNOLOGY | Hyderabad, India **Jul 2018 – Jul 2022**
Bachelor of Science in Computer Science | Cumulative GPA: 7.8/10

WORK EXPERIENCE

WESTPAQ SOFTWARE SOLUTIONS | Python Developer | Hyderabad, India **Jul 2022 – Jul 2023**

- Built and maximized scalable data pipelines handling 20GB daily using PySpark, HBase, SQL, MySQL, ensuring seamless data integration and processing.
- Augmented big data performance by optimizing Spark RDDs, Data Frames, and SQL joins, leveraging caching, serialization, and shuffle optimization, achieving 20% faster processing and 15% upgraded query runtime.
- Led cloud migration from Cloudera to AWS (EMR, S3, Redshift), improving throughput by 20%, enabling scalable, high-performance data infrastructure.
- Integrated Apache Kafka and Spark for real-time data ingestion, streamlining pipeline orchestration using Oozie, boosted system uptime to 99.99% across development and production environments.
- Facilitated data-driven decisions through Tableau visualizations, presenting findings to fix the three biggest causes of data pipeline failures, increasing data accessibility and reliability scores by 25%.

VERZEO| Software Developer | Bangalore, India **Jan 2021 – Jun 2022**

- Created and deployed software applications using Python, JavaScript, and SQL/NoSQL databases; monitored system performance and reduced CPU utilization by 15% through efficient resource allocation.
- Developed modular React.js components, enhancing user interface consistency across the application and decreasing user-reported bugs by 40% via improved code maintainability.
- Drove code quality improvements across 7 applications by implementing static code analysis tools and automated testing frameworks, reducing defect density by 25% and enhancing reliability.

PROJECTS

DOCTOR APPOINTMENT BOOKING SYSTEM USING MERN STACK **Aug 2024 – Dec 2024**

- Developed a MERN Stack application using React.js, Node.js, Express.js, and MongoDB to manage doctor appointments with 3 levels of authentication for patients, doctors, and admins.
- Drove code quality improvements across 7 applications by implementing static code analysis tools and automated testing frameworks, reducing defect density by 25% and enhancing reliability**.**
- Optimized application performance by reducing loading time by 30%, ensuring scalable data management, and implementing role-based security for user access control.

DATA ANALYSIS BY WEB SCRAPING USING PYTHON **Jan 2022 - Jun 2022**

- Created a Python script using Pandas to automate formatting and standardizing data for new data sources, helping new team members onboard to data processes 50% faster.
- Constructed interactive dashboards visualizing web-scraped data, delivering actionable intelligence to stakeholders, utilizing Python libraries (Pandas, Beautiful Soup, Selenium, Matplotlib); facilitated a 20% increase in efficiency**.**

TECHNICAL SKILLS

Programming Languages: Python, Java, SQL, C/C++, R, C#
Front- End: React.js, HTML5, CSS, Bootstrap, Angular2+, JavaScript, TypeScript
Back-End: Spring Boot, Node.js, Express.js, RESTful & GraphQL APIs
Cloud & Containerization: AWS (S3, Redshift, Lambda), GCP, Azure, Docker.
Big Data Technologies: Apache Spark, Hadoop, Kafka, Pyspark, Data Pipelines.
Database Management: MySQL, PostgreSQL, NoSQL, Microsoft SQL Server, Big Query.
Data Visualization Tools & Wrangling Tableau, Power BI, Data Visualization, Data Wrangling.
Libraries: NumPy, Pandas, Matplotlib, Scikit-Learn, PyTorch, TensorFlow, XGBoost, Keras.

CERTIFICATIONS

Certified in Data Structures in Python – Expertise in algorithms & data manipulation.
Achieved PCAP in Python – Validated Python programming skills.
Certified in Machine Learning – Internshala Trainings, 2021.