SUMANTH REDDY BONTHA

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EDUCATION

University of Central Florida Master of Science in Computer Science May 2025

Coursework: Design and Analysis of Algorithms, Data Mining, Machine Learning, Computer Vision

Osmania University Bachelor of Engineering in Computer Science May 2022

Coursework: Computer Networks, OOPS, DBMS, Operating Systems, Machine Learning, NLP, Cloud Computing

TECHNICAL SKILLS

Programming Languages : Java, JavaScript, Python, HTML5, CSS3, C

Frameworks & Tools : React.js, Spring Boot, Flask, Node.js, Docker, Git

Cloud & DevOps : AWS (EC2, S3, Lambda), GCP
Databases : PostgreSQL, SQL, MongoDB

Machine Learning : Scikit-learn, TensorFlow, PyTorch, Spark ML

CERTIFICATIONS

Programming and Data Structures using Python – **NPTEL** Algorithmic Toolbox – **Coursera**

PROFESSIONAL EXPERIENCE

SOFTWARE ENGINEER ENERGY TECH GLOBAL, HYDERABAD, INDIA

May 2022 – July 2023

- Developed and optimized back-end services with **Java** and **Spring Boot**, improving request handling efficiency by 30% and reducing average response times by 20%.
- Designed and deployed **RESTful** APIs, increasing system throughput by 25% and enabling seamless integration with external systems.
- Implemented robust data validation and exception handling processes, cutting production error rates by 40% and improving overall reliability.
- Optimized database queries and indexing in **PostgreSQL**, reducing query execution times by 50% and lowering server resource utilization by 15%.
- Established automated test suites and CI/CD pipelines, increasing deployment frequency by 30% and reducing lead time for changes by 40%.
- Led performance tuning efforts that scaled the system to handle 10,000+ concurrent users without performance degradation.

SOFTWARE ENGINEER INTERN ENERGY TECH GLOBAL, HYDERABAD, INDIA Feb 2022 – May 2022

- Built and deployed REST APIs using **Spring Boot**, improving data retrieval efficiency by 15%.
- Enhanced backend workflows by using **SQL** and **JDBC** to streamline data processing, reducing query execution times by 30%.
- Assisted in creating responsive front-end interfaces with HTML, CSS, and React, improving user satisfaction scores by 10%.

PROJECTS

E-COMMERCE PLATFORM

Sep 2023 - Nov 2023

Tech Stack: Java, React.js, AWS, PostgreSQL, Docker

- Built and deployed a **full-stack** e-commerce simulation platform for handling products, carts, orders, and authentication; used by peers for testing and demoed to a faculty panel.
- Deployed backend **APIs** on **AWS** EC2 and frontend on S3 with **JWT** authentication; resolved 4+ access and session bugs through testing.
- Streamlined dev workflows using **Docker** and **GitHub** Actions with a test-driven development approach, reducing deployment overhead and increasing confidence in feature stability.

ML-DRIVEN STOCK ANALYSIS PLATFORM

Feb 2024 - Apr 2024

Tech Stack: Python, Pandas, Scikit-learn, Spark, HDFS, GCS

- Engineered an end-to-end data pipeline to process over 2M historical financial records and extract insights from stock movement patterns using **Spark**.
- Applied unsupervised **clustering** techniques and enhanced **classification** models (Random Forest, Decision Trees, XGBoost) by applying **dimensionality** reduction (PCA, t-SNE), achieving over 82% predictive accuracy.