

Fatima Sidra

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PROFESSIONAL SUMMARY:

- Experienced Data Engineer and Analyst with expertise in designing analytical models, dashboards, and scalable pipelines.
- Skilled in machine learning, NLP, and predictive modeling for data-driven insights.
- Specialized in healthcare analytics, including COVID-19 impact analysis and resource planning.
- Educator and aspiring researcher in Big Data, Software Engineering, and medical imaging.
- Proficient in AWS, Snowflake, and Python automation for workflow optimization.

EDUCATION:

Bachelors in Computer Science and Engineering,

JNTUH, Hyderabad, India

Masters in Computer Science and Engineering,

Osmania University

Masters in Business Analytics,

Trine University

TECHNICAL SKILLS:

Programming Languages: Python.

Data Tools: AWS Glue, AWS S3, AWS Lambda, QuickSight, ETL pipelines, MS Excel, SQL, Power BI, Tableau.

Machine Learning: Predictive modeling, NLP (text preprocessing, summarization, sentiment analysis, topic modeling), Monte Carlo simulations, RFM scoring, statistical modeling.

PROFESSIONAL EXPERIENCE:

Muffakham Jah College of Engineering and Technology, Hyderabad, India

Jan 2023 – June 2023

Role: Assistant Professor, Department of Computer Science and Artificial Intelligence

Responsibilities:

- Delivered undergraduate courses in Big Data Analytics and Software Engineering, providing comprehensive instruction on foundational and advanced concepts.
- Supervised graduate and undergraduate students, guiding them through the successful completion of course projects and fostering practical application of theoretical knowledge.
- Conducted research in Medical Imaging, focusing on image segmentation, brain tumor analysis, and breast cancer detection.

Client: Pnb MetLife India insurance co. Ltd, Mumbai, India

Dec 2020 – Dec 2022

Role: Data Engineer

Responsibilities:

- Identified fraud patterns in claims and transactions, leading to a significant reduction in fraudulent payouts.
- Conducted real-time and historical data reviews to detect anomalies and prevent financial losses.
- Managed customer fraud appeals efficiently, resolving cases within established SLAs to maintain compliance.
- Improved fraud detection processes by implementing automated alerts, enhancing accuracy and response time.
- Collaborated with risk and compliance teams to strengthen anti-fraud measures and optimize investigative workflows.

Client: Fortis Healthcare, Gurgaon, India

Oct 2019 – Nov 2020

Role: Data Analyst

Responsibilities:

- Built and managed an AWS Data Lake to centralize COVID-19-related data, integrating real-time feeds from testing centers, patient admissions, and resource utilization systems. Designed Glue pipelines and workflows to enable seamless data flow for critical analytics.
- Designed and implemented COVID-19 predictive models to monitor case trajectories, patient recovery rates, and ICU occupancy, providing actionable insights that informed hospital capacity planning and resource allocation.
- Created interactive dashboards in QuickSight to track pandemic-specific metrics, including testing volumes, positivity rates, ventilator usage, and PPE inventory. These dashboards were utilized by leadership to make informed, real-time decisions on crisis management.
- Collaborated with cross-departmental teams, including clinical staff, to streamline data processes for COVID-19 patient tracking, enabling efficient management of bed availability, oxygen supply, and workforce distribution.
- Conducted impact analysis of COVID-19 on hospital operations, highlighting bottlenecks in claims processing, patient flow, and resource allocation. Insights were used to drive immediate improvements and prepare for future surges.
- Played a pivotal role in scenario planning by using statistical models to simulate pandemic outcomes, enabling Fortis Healthcare to develop contingency plans for worst-case scenarios, including second-wave readiness.