LAKESH KUMAR SURYADEVARA

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SUMMARY

Developer & Analyst with 3+ years of experience building scalable data pipelines, developing APIs and backend services, and performing advanced analytics for enterprise platforms. Proficient in Python, Java (Spring Boot), SQL, Airflow, Snowflake, Power BI, and AWS. Strong background in ETL, dashboarding, ML workflow development, API integration, and statistical analysis. Proven ability to translate business problems into technical solutions, optimize system performance, and deliver actionable insights.

EXPERIENCE

Software Developer

FITPAA | Hyderabad, India | Jun 2020 – Jul 2023

- Developed end-to-end data pipelines and backend services using Python, Java (Spring Boot), and Apache Airflow, processing 1 TB+ daily data with 99.9% uptime to support real-time analytics and operational systems.
- Built and deployed production RESTful APIs in Java to deliver ML predictions, analytical data, and business insights to mobile applications and internal platforms, handling 10,000+ daily requests with sub-200ms latency.
- Designed automated ETL/ELT workflows using Python, SQL, and Snowflake to extract, transform, and load data from multiple sources, reducing manual processing time by 30% and ensuring data quality.
- Developed predictive models and analytical solutions using machine learning algorithms for user behavior analysis, retention forecasting, and personalized recommendations, improving engagement by 20%.
- Created full-stack data visualization applications using React, Streamlit, and Power BI, integrating frontend interfaces with backend APIs to deliver interactive dashboards and KPI monitoring tools for stakeholders.
- Performed advanced statistical analysis, data mining, and A/B testing using Python (Scikit-learn, SciPy) to extract actionable insights, validate hypotheses, and optimize business metrics through experimental design.
- Engineered feature extraction and data transformation pipelines, applying encoding techniques, aggregations, and time-series analysis to enhance model performance and analytical accuracy by 15%.
- Optimized database performance by refactoring SQL queries and designing efficient schemas across PostgreSQL, MySQL, and Snowflake, improving query execution time by 40%.
- Implemented CI/CD workflows and version control practices using Git, MLflow, and Airflow DAGs for automated testing, deployment, and monitoring of data applications and analytical models.
- Integrated cloud services (AWS S3, EC2, Lambda) and third-party APIs into data systems, enabling seamless data ingestion, processing, and real-time reporting capabilities.
- Collaborated with product managers, business analysts, and engineering teams in Agile environment using Jira and Confluence, translating business requirements into technical specifications and analytical solutions.
- Established data governance standards and quality assurance processes using Python automation to maintain data integrity, ensure compliance, and monitor system performance across production environments.

Graduate Assistant – Housing & Residential Life

University of Memphis | Jan 2024 – May 2025

- Developed scripts and tools using Python, SQL, and Power Query to streamline occupancy tracking, inventory management, and ticketing workflows.
- Automated weekly reporting for occupancy, facility usage, and maintenance trends, improving operational efficiency and decision-making.
- Built and optimized dashboards displaying key performance indicators for housing operations and administrative planning.
- Conducted data cleaning, validation, and process documentation to support reproducible workflows and ensure data integrity.

SKILLS

Programming Languages: Python, Java, SQL, JavaScript, R, Bash, HTML/CSS

Software Development: Java (Spring Boot), REST APIs, Microservices, Flask, API Development, Full-Stack Development, System Design, Object-Oriented Programming

Data Analysis & Statistics: Pandas, NumPy, SciPy, Statistical Modeling, Data Mining, Exploratory Data Analysis, A/B Testing, Hypothesis Testing, Predictive Analytics
Machine Learning: Scikit-learn, TensorFlow, XGBoost, Random Forest, Feature Engineering, Model Development, Model Deployment, MLflow
Data Engineering: Apache Airflow, ETL/ELT Development, Data Pipeline Architecture, Workflow Automation, Data Integration, Snowflake, AWS (S3, EC2, Lambda)
Databases: SQL Server, PostgreSQL, MySQL, MongoDB, Snowflake, Database Design, Query Optimization, Data Modeling
Business Intelligence & Visualization: Power BI, Tableau, Streamlit, React, Matplotlib, Seaborn, Excel, Dashboard Development, Data Storytelling
Cloud & DevOps: AWS (S3, EC2, Lambda), Git/GitHub, CI/CD, Docker, Distributed Systems, Cloud Architecture
Development Tools: Git/GitHub, Jira, Confluence, VS Code, Jupyter Notebooks, Agile/Scrum, Code Review
Data Management: Data Quality Assurance, Data Validation, Data Governance, Documentation, Process Optimization

EDUCATION

Master of Science in Data Science | University of Memphis | 2023 - 2025
Relevant Coursework: Machine Learning, Artificial Intelligence, Data Mining, Deep Learning, Software Engineering

PROJECTS (Link)

Financial News Sentiment Analyzer

- Engineered NLP-based sentiment analysis application using FinBERT (Hugging Face Transformers) and Python to process 500+ financial headlines daily through automated REST API integrations
- Developed full-stack web application with interactive Streamlit dashboard featuring real-time sentiment tracking, trend visualization, and stock correlation analysis, improving trading insight accuracy by 25%
- Implemented data pipeline for API integration, data preprocessing, and sentiment scoring with automated daily updates

Crop Yield Forecasting Model

- Built end-to-end machine learning solution using ensemble methods (XGBoost, Random Forest) achieving 95% prediction accuracy on 10+ years of agricultural time-series data including rainfall, temperature, and soil metrics
- Developed automated feature engineering pipeline for satellite imagery integration using Google Earth Engine API with data preprocessing and transformation workflows
- Deployed production-ready Flask REST API for real-time yield predictions with JSON responses and error handling

Economic Indicators Dashboard

- Architected automated business intelligence platform integrating R statistical scripts with Power BI and FRED API to monitor 15+ macroeconomic KPIs (GDP, inflation, unemployment rates)
- Implemented ETL pipeline with automated data refresh, custom DAX calculations, and statistical trend analysis, reducing manual reporting time by 40%
- Created interactive visualizations with drill-down capabilities and time-series forecasting for executive decision support

Vendohub: MLM E-commerce Platform

- Designed and implemented scalable relational database schema for multi-level marketing e-commerce platform, modeling complex relationships for users, products, orders, hierarchical commissions, and referral tracking
- Developed full-stack application with shopping cart functionality, order management system, and multi-payment gateway integration (bank transfer, credit card, UPI)
- Built automated commission calculation engine and payout tracking system with detailed transaction breakdowns to streamline MLM reward distribution

Resilient Energy Consumption Forecasting

- Engineered full-stack forecasting application using Python and Streamlit with time-series prediction models (Prophet, ARIMA, SARIMA) for energy consumption analysis and planning
- Implemented automated ETL pipeline for data ingestion, cleaning, preprocessing, and feature extraction from time-series energy datasets
- Developed custom circuit-breaker pattern for anomaly detection and automated failover to fallback predictions (7-day moving average) ensuring system resilience under data quality issues