# LAKESH KUMAR SURYADEVARA

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## SUMMARY

Results-driven Data Scientist with 3+ years of experience developing and deploying AI-driven predictive and optimization models across large-scale data environments. Proven expertise in machine learning, statistical modeling, and data engineering, delivering measurable business impact through process optimization, anomaly detection, and forecasting. Skilled in Python, R, and SQL, with a strong ability to translate business challenges into scalable, production-ready AI solutions. Passionate about advancing data-driven decision-making in industrial and operational domains.

## EXPERIENCE

**Data Scientist**

FITPAA | Hyderabad, India | Jun 2020 – Jul 2023

- Designed and implemented predictive models for user engagement and operational efficiency, achieving 30% improvement in platform optimization.
- Developed AI pipelines using Python, PySpark, and Airflow, automating ETL processes for 1TB+ daily data.
- Built and deployed forecasting models to predict user behavior and health outcomes, driving 25% increase in goal completion.
- Conducted anomaly detection across health sensor data streams, improving system reliability and reducing false alerts by 20%.
- Created interactive Power BI dashboards for real-time KPI tracking, enabling faster decision-making for executives.
- Collaborated with engineering and analytics teams to integrate AI models into production systems, following Agile methodologies.

**Graduate Assistant – Data Mining**

Department of Data Science, University of Memphis | Jan 2024 – May 2024

- Designed lab materials for ML courses covering feature engineering, model evaluation, and classification algorithms.
- Guided students in R, Python, and SQL projects using Scikit-learn, caret, and ggplot2.
- Contributed to research in AI model interpretability and bias detection methods

## TECHNICAL SKILLS

**Languages & Core:** Python, R, SQL, Git, Bash
**ML/AI Frameworks:** TensorFlow, Scikit-learn, PySpark, XGBoost, Keras, Hugging Face Transformers
**Specializations:** Predictive Forecasting, Process Optimization, Statistical Modeling, Anomaly Detection, Data Mining, NLP, Deep Learning
**Cloud & Infrastructure:** AWS (S3, EC2), Snowflake, Apache Spark, Airflow, Docker
**Data Engineering:** ETL Development, Data Warehousing, Pipeline Orchestration, Data Integration
**Analytics & BI:** Power BI, Tableau, Matplotlib, Seaborn

## EDUCATION

**Master of Science in Data Science** | University of Memphis | 2023 - 2025
Relevant Coursework: Machine Learning, Artificial Intelligence, Data Mining, Deep Learning, Software Engineering, Large Language Models
**Bachelor of Technology in Electronics and Communication Engineering** | SRM University, Andhra Pradesh, India | 2017 - 2021

## PROJECTS (Link)

**Financial News Sentiment Analyzer**

- Developed NLP-based sentiment analyzer using FinBERT (Hugging Face Transformers) to process 500+ financial headlines daily from multiple news APIs.
- Built interactive Streamlit dashboard with real-time sentiment trends and stock correlation analysis, improving trading insight accuracy by 25%.
- Tech Stack: Python, FinBERT, Pandas, Streamlit, REST APIs

**Brain Tumor Classification from MRI Scans**

- Trained CNN model using TensorFlow and Keras with ResNet-50 transfer learning on 7,000+ MRI images from Kaggle medical imaging dataset.
- Achieved 99% classification accuracy with 5-fold cross-validation; optimized training time by 30% using data augmentation and reduced prediction errors by 35%.
- Tech Stack: TensorFlow, Keras, OpenCV, NumPy, Matplotlib

**Crop Yield Forecasting Model**

- Designed predictive model using XGBoost and Random Forest with 95% accuracy on 10+ years of agricultural data including rainfall, temperature, and soil metrics.
- Integrated satellite imagery features using Google Earth Engine API; deployed model via Flask API for real-time yield predictions.
- Tech Stack: Python, XGBoost, Scikit-learn, Flask, Google Earth Engine

**Economic Indicators Dashboard**

- Built automated Power BI dashboard integrating R scripts with FRED API to monitor 15+ macroeconomic indicators (GDP, inflation, unemployment).
- Reduced manual reporting time by 40% through automated data refresh and custom DAX calculations for trend analysis.
- Tech Stack: Power BI, R, FRED API, DAX

## CERTIFICATIONS

- Fine-Tuning for LLMs – LinkedIn Learning, 2025
- Intro to Snowflake for Data Scientists – Snowflake, 2025
- Python Fundamentals for MLOps – LinkedIn Learning, 2024
- SAS Essential Training for Research – LinkedIn Learning, 2023