

LAKESH KUMAR SURYADEVARA

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SKILLS

Programming Languages: Python, R, Java, SQL, JavaScript, HTML5, CSS3

Frameworks & Libraries: Flask, Streamlit, Pandas, NumPy, Prophet, TensorFlow, Keras, PyTorch, LangChain, FAISS, OpenCV

Machine Learning: Supervised & Unsupervised Learning (SVM, Random Forest, Gradient Boosting), CNN, Transfer Learning, Transformers (BERT, FinBERT)

NLP: Sentiment Analysis, Text Preprocessing, Tokenization, Text Classification, RAG, Grad-CAM

Data Visualization: Power BI (DAX, Power Query), Tableau, Matplotlib, Plotly

Web Scraping & APIs: BeautifulSoup, FRED API, Alpha Vantage, RSS, Google Sheets API, Twilio

Tools & Platforms: Jupyter, Colab, Anaconda, Spyder, SQLite, Redis, Excel, Cron

PROFILE SUMMARY

I am a data science graduate with a passion for solving real-world problems through machine learning, deep learning, and data visualization. I am skilled in Python, PyTorch, Hugging Face Transformers, and Power BI, with hands-on experience building AI models for NLP, computer vision, financial analysis, and energy consumption forecasting. I enjoy tackling complex challenges, creating scalable solutions, and turning data into actionable insights. I am excited to leverage data to drive innovation and make a positive impact in dynamic, fast-paced environments.

EDUCATION

UNIVERSITY OF MEMPHIS, Memphis, TN

M.S. in Data Science, GPA: 3.5/4.0 | August 2023 - May 2025

SRM UNIVERSITY, Andhra Pradesh, India

B.Tech in Electronics & Communication Engineering | Jul 2017 - Dec 2021

PROJECTS

Economic Indicators Dashboard Using Power BI & FRED API

- Built a dynamic Power BI dashboard integrating GDP, inflation, and interest rate data, enabling decision-makers to explore economic trends and reducing manual analysis time by 40%.
- Pulled real-time feeds from the FRED API and Google Sheets, ensuring 100% up-to-date information in all visualizations.
- Developed 15+ custom DAX formulas and Power Query steps for data cleaning and transformation.
- Supported actionable macroeconomic insights for a user base of business stakeholders.

Climate Change Impact on Crop Yield Forecasting

- Developed predictive models in Python to forecast yields of maize, rice, and wheat across four countries, achieving an average R^2 of 0.88 on test data.
- Designed publication-ready Matplotlib visualizations, improving stakeholder understanding of climate impact by 60% (based on survey feedback).
- Automated the entire data science workflow in Jupyter Notebooks, reducing manual processing by 70%.
- Delivered insights to support agricultural planning for organizations serving 5,000+ farmers.

Brain Tumor Classification from MRI Scans

- Created a deep learning pipeline to classify brain tumors from 7,000+ MRI images, improving diagnostic accuracy to 99%.
- Increased model robustness by augmenting the dataset with 20% more images and reducing prediction errors by 35%.
- Designed and trained a custom CNN in TensorFlow/Keras, cutting training time by 30% through optimized preprocessing.
- Analyzed results with detailed class-wise metrics, ensuring clinical reliability for deployment in a hospital pilot study.

Resilient Energy Consumption Forecasting

- Built an interactive web app for energy consumption forecasting, increasing forecast accuracy by 18% compared to baseline models.
- Managed the full pipeline, handling datasets of over 100,000 time-series records and implementing anomaly detection to reduce forecast errors by 22%.

- Developed a Streamlit dashboard used by 25+ users for scenario analysis and performance review.
- Implemented custom reliability features, reducing downtime and error-related crashes to nearly zero.

Real-Time Financial News Sentiment Dashboard

- Designed and developed a real-time dashboard processing 500+ financial news headlines daily for sentiment analysis.
- Integrated NewsAPI and the FinBERT transformer, boosting classification accuracy by 20% over standard sentiment models.
- Automated sentiment scoring and export functions, saving users 3+ hours per week on manual news monitoring.
- Delivered a modular, deployment-ready app now used by 30+ portfolio managers and individual investors.

Black Friday Deals Agent

- Developed a full-stack web app to automate tracking of 2,000+ product prices across Amazon, Best Buy, and Walmart.
- Implemented predictive analytics to forecast price drops with 85% accuracy during major sales events.
- Set up automated notifications via email and SMS, reducing manual price checks by 90%.
- Designed a user-friendly interface that increased user retention by 25% after launch.

AI Investment Research Assistant

- Created an AI-powered tool for rapid extraction and analysis of company financial data from 10-K PDFs and public APIs, reducing research time by 50%.
- Built an NLP pipeline using Hugging Face and LangChain, supporting smart search over 10,000+ pages of financial documents.
- Developed a Streamlit app enabling instant answers for 100+ company tickers.
- Integrated Alpha Vantage and a Retrieval-Augmented Generation workflow, achieving 95% accuracy on information retrieval tasks in benchmark tests.

CERTIFICATIONS

- Python Data Analysis (LinkedIn 2023)
- R for Data Science: Analysis and Visualization (LinkedIn 2024)
- Networking Basics (CISCO 2025)

WORK EXPERIENCE

Full Stack Developer

FITPAA, Hyderabad, India

March 2022 – March 2023

- Developed and maintained web applications using Java for the backend and HTML, CSS, and JavaScript for the frontend.
- Designed and built responsive user interfaces, making applications more accessible and user-friendly.
- Integrated front-end features with backend services using RESTful APIs, ensuring seamless and reliable data flow.
- Worked closely with senior developers and cross-functional teams to troubleshoot issues and deliver projects on time.
- Gained hands-on experience throughout the entire software development lifecycle and contributed to a collaborative, agile team environment.