Lokesh Kanna Rajaram

lrajaram@buffalo.edu | Portfolio | LinkedIn: Lokesh kanna | GitHub:Lokeshkanna7
+1(716) 520 7064

EDUCATION

University at Buffalo, The State University of New York **Buffalo, NY, USA**
Master of Science *12/2025*

- **Concentrations:** Engineering Science - Data Science
- **Coursework:** Numerical Mathematics, Introduction to Probability, Statistical Data Mining, Database Fundamentals, Data Intensive Computing, Data Model Query Languages, Introduction to Machine Learning.

Anna University **Chennai, India**
Bachelor Of Engineering *Graduated, 04/2023*

- **Concentrations:** Geoinformatics, Minor: Computer Science
- **Coursework:** Data Structures & Algorithms, Satellite Weather Forecasting and Modelling, Computer Organization & Programming, Satellite Image Processing, Object-Oriented Programming, Decision Support System, Database Management System, Computer Vision.

PROJECTS

OPTIMIZED BULK STOCK SELLING STRATEGIES WITH MACHINE LEARNING **11/2024 - 12/2024**

- Improved stock price and volume prediction accuracy by 15% (achieving 78%) by engineering end-to-end predictive pipelines using Random Forest, Gradient Boosting, and LSTM on a 4-year NVDIA dataset.
- Built efficient and scalable algorithmic trading strategies (VWAP and TWAP) to reduce market impact and enhance profitability for bulk stock transactions, showcasing applied data engineering and modeling skills.
- Enhanced feature quality and model performance by integrating advanced technical indicators (RSI, Bollinger Bands) and performing data-driven exploratory analysis and visualizations to inform strategy.

CHURN PREDICTION SYSTEM **11/2024 – 12/2024**

- Achieved 87% accuracy in predicting customer churn by designing and implementing machine learning models using Random Forest and Gradient Boosting, driving data-driven retention strategies.
- Enabled real-time churn classification and seamless user interaction by building a scalable FastAPI-based API, containerizing it with Docker, and deploying it on the cloud with a Streamlit front-end.
- Improved model reproducibility and stakeholder communication by documenting experiments with MLflow on DagsHub and presenting results through a structured Jupyter Book featuring scree plots and F1-score comparisons.

TEXT SUMMARIZER USING DEEP LEARNING **06/2024 - 07/2024**

- Improved system scalability and performance for text summarization models by deploying secure, high-availability infrastructure using AWS EC2 and IAM, and conducting extensive performance tuning.
- Accelerated deployment cycles and reduced manual overhead by building an automated CI/CD pipeline with GitHub Actions and containerizing the application using Docker for reproducible builds.
- Delivered a production-ready, user-friendly summarization tool by managing cloud-based deployment on EC2, integrating workflow automation, and collaborating with teammates to ensure seamless continuous delivery.

TIME SERIES ANALYSIS OF GROUNDWATER CHANGE USING GRAVITY RECOVERY AND CLIMATE EXPERIMENT **12/2023 – 04/2024**

- Led end-to-end geospatial data processing and wrangling by handling multi-format datasets (GLDAS, NetCDF, GeoTIFF) using Python, and visualizing spatial trends with ArcMap and QGIS
- Uncovered a long-term groundwater decline of 5.877 cm/year across the Cauvery River basin by analyzing GRACE satellite time-series data from 2003 to 2022, supporting climate-informed policy insight.
- Predicted an average annual groundwater thickness variation of -26.179 cm by building data models to assess significant changes over time, applying statistical analysis to large-scale geospatial data.

SKILLS

Programming Languages & Databases: Python, R, MySQL, MATLAB, Hadoop, Spark, Map Reduce
Tools & Platforms: AWS, Docker, Kubernetes, GitHub, Git, Jenkins, GCP, PowerBI, Tableau
AI/ML Frameworks: PyTorch, Seaborn, Sklearn, NumPy, Keras, TensorFlow, Natural Language Processing