# Riya Bose

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### **Technical Skills**

- Programming Languages: Python(Intermediate)
- o Machine Learning Frameworks & Libraries: TensorFlow, Scikit-learn, Pandas, NumPy, Matplotlib, Seaborn
- o Tools: GIT, Jupyter Notebooks, VS Code, Tableau, Power BI, SQL, Excel, Alteryx, QlikSense, Snowflake, AWS
- o Soft Skills: Leadership, Event Management, Writing, Public Speaking, Time Management

## **Education**

# Master of Technology - Computer Science and Engineering

Kalinga Institute of Industrial Technology, Bhubaneswar, India

2023 - Present

Courses: Database Management System, Machine Learning and Deep Learning, Advanced Mathematics, DSA

# **Projects**

#### Global Currency Value Predictor and Economic Health Analyzer

- Designed and implemented an end-to-end data pipeline for predicting USD/INR exchange rates, integrating economic indicators from Alpha Vantage and World Bank APIs. Applied ETL processes for data cleaning, integration, and transformation, creating a robust dataset. Developed risk models using Random Forest, XGBoost, and LSTM to predict fluctuations and assess economic health.
- o Tech Stack: Python, Pandas, numpy, Scikit-learn, XGBoost, TensorFlow, LSTM, Alpha Vantage API, Matplotlib.

#### Semantic Grouping of Clinical Studies

- o Developed a data integration pipeline for clinical trial data, using TF-IDF and Cosine Similarity for semantic grouping. Implemented risk models to categorize trials based on outcome similarity, aiding clinical protocol design. Ensured data governance by structuring and standardizing data, using SHAP for model explainability and improving decision support transparency.
- o Tech Stack: Python, pandas, numpy, scikit-learn, SHAP, TF-IDF, Cosine Similarity, matplotlib, seaborn.

#### Music Generation Using Al

- Designed an ETL pipeline to preprocess and transform MIDI data, making it suitable for LSTM model training. Utilized LSTM for pattern recognition and predictive modeling to generate unique musical compositions, improving data-driven creativity.
- o Tech Stack: Python, pandas, numpy, MIDI, TensorFlow/Keras, LSTM, matplotlib, seaborn.

# **Experience**

# Senior System Engineer

3+ years

Pune, Maharashtra

Cognizant Technology Solutions

Led a team in managing and supporting IT environments, overseeing over 25,000 physical and virtual Windows servers, ensuring seamless operations and minimal downtime.

- o Role: Shift Lead
- **Key Contributions:** Streamlined incident resolution by applying data-driven root cause analysis and optimizing change management processes using ITIL best practices.
  - Collaborated with global teams (Database, Windows, Unix, and Control-M) to enhance system performance through proactive issue management, data optimization, and performance monitoring.
  - Automated incident response workflows by integrating ServiceNow with monitoring tools, improving data flow, reducing response times, and enhancing reporting.
  - Developed and maintained interactive operational dashboards using Grafana, Tableau, and Power BI, delivering real-time reporting on system performance and operational risks, and providing actionable insights for decision-making.
- o **Technical Skills:** Python (Pandas, NumPy), Microsoft SQL Server, Shell Scripting, Tableau, Power BI, Grafana, ServiceNow, BMC (Patrol/BEM), HP monitoring tools, Windows Server(2012, 2016, 2019), VMware

#### **Online Courses**

o Udemy: Machine Learning A-Z, Deep Learning A-Z, Complete Generative AI Course With Langchain and Huggingface.