## Ranesh Mitra

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## **Professional Summary**

Accomplished Data Scientist with over 3 years of experience in Al/ML and a strong background in business operations, specializing in NLP, LLMs, deep learning, and cloud deployment. Developed and deployed 80+ machine learning projects, focusing on finance and NLP solutions. Proficient in Python, SQL, cloud tools (AWS/Azure), and MLOps frameworks. Strong in data-driven insights, model optimization, and driving business results through Al innovations.

## **Core Competencies**

- Machine Learning & Al: Supervised/Unsupervised Learning, Generative Al (GPT, LLaMa, PaLM), Reinforcement Learning
- NLP & LLMs: Named Entity Recognition, Text Summarization, BERT, GPT, LLaMa
- Cloud Deployment: AWS SageMaker, Azure Cognitive Services, Docker, Flask, Streamlit
- Generative AI: RAG (Retrieval Augmented Generation), LLM, BLOOM, DALL-F
- Predictive Modelling: Time Series Forecasting, Clustering
- MLOps: MLFlow, CI/CD with GitHub Actions, DagsHub
- Statistical Analysis: Hypothesis Testing, Regression, A/B Testing

#### **Technical Skills**

- Languages: Python, SQL (MySQL, PostgreSQL), Java, C++
- ML/DL Tools: TensorFlow, Keras, PyTorch, Scikit-learn
- Data Tools: Pandas, NumPy, Power Bl
- Cloud & MLOps: AWS SageMaker, Azure Cognitive Services, Docker, MLFlow, GitHub Actions
- **Development Tools**: Jupyter, Git, GitHub Actions

#### **Professional Experience**

## **Business Operations Lead**

Reliance Jio | 2018-2024

- Increased operational efficiency by 20% and customer satisfaction by 50% through data analytics.
- Reduced customer complaints by 20%, leading team efforts in process optimization.

## **Internship Experience**

## Al and Analytics Intern (Unpaid)

Cloudstats | 2021–2022 Part of Data Science Master's Certification

- Developed a text summarization tool that reduced content volume by 60% with an accuracy of 80%.
- Improved decision-making efficiency by 30% by creating comprehensive machine learning pipelines.

## **Key Projects**

#### 1. Loan Default Prediction

 Designed a model using Python and Scikit-learn, achieving 95% precision and reducing loan processing time by 30%.

#### 2. Sentiment Analysis for Social Media

 Built an 85% accurate sentiment classification model for analyzing 50,000+ posts with Python, NLTK, and Scikit-learn.

#### 3. Customer Segmentation for Marketing

 Executed segmentation with K-means, improving marketing ROI by 20% through analysis of 50,000+ customer profiles.

## 4. Stock Price Prediction Using LSTM

 Achieved a 2.5% MAE in stock price forecasting, outperforming benchmarks by 8%.

## **Education**

# Master of Computer Applications (MCA)

West Bengal University of Technology | 2013

## **B.Sc. in Computer Science**

Calcutta University | 2010

## **Master's Certification in Data Science**

Itvedant Education Pvt. Ltd. | 2022

## **Additional Certifications:**

- Java J2EE
- PHP