# Ramesh Naik

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### **TECHNICAL SKILLS**

Machine Learning & AI: Deep Learning, NLP, LLM, Predictive Modeling, Generative AI, Statistics, A/B Testing, Causal inference Programming & Frameworks: R, Python (Pandas, NumPy, Scikit-learn, TensorFlow, PyTorch), LangChain, DataLake Data Engineering & Pipelines: Data Preprocessing, ETL, Apache Airflow, PySpark, Hadoop, Docker, Kubernetes, Delta, DBT Cloud & Visualization: Google Cloud Platform (GCP), AWS (EMR, Lambda, S3, Glue, EKS), Azure, Databricks, Power BI, Tableau Databases & Storage: PostgreSQL, Redshift, Snowflake, MongoDB, DynamoDB, Neo4j, NoSQL, TSQL, Github

#### PROFESSIONAL EXPERIENCE

**Data Engineer** 

O'Neill School of Public and Environmental Affairs

Nov 2024 - Ongoing Bloomington, IN, US

- Engineered AI-powered **data pipelines** to process and classify over 270,000 nonprofit mission statements, utilizing LLMs for advanced feature extraction and automated organizational classification, accelerating data curation efforts.
- **Boosted ETL pipeline efficiency** by 35% by migrating data transformation logic from Pandas to SQL, resulting in faster query execution, streamlined updates to normalized schema, and improved responsiveness for ad-hoc analytical queries.
- **Conducted large-scale data integrity** assessments on 275,000+ tax records using SQL-based validation logic, identifying critical gaps and improving the consistency of cross-dataset joins.

**Data Engineer** 

Sutherland Global Services

Nov 2021 - Jul 2023

- Mumbai, MH, India
- Built an **end-to-end ML workflow** to predict loan defaulters across delayed payment categories (30, 60, 90+ days) using historical loan data, implementing LightGBM for **financial risk modeling and classification**.
- Authored PostgreSQL scripts to transform quarterly raw loan data and integrated Apache Airflow and Apache Spark to automate ETL, feature selection, statistical analysis, data visualization, and dataset splitting for risk analytics.
- Trained **machine learning and deep learning** models to predict the failure of over 10 components within CT and MRI machines, utilizing historical maintenance records, sensor data, and field reports for **Philips Healthcare**.
- Implemented machine learning models such as Random Forests and Gradient Boosting Machines (LighGBM) and deep learning approaches for classification.
- Maintained a **precision of over 87%**, achieving predictions that facilitated maintenance and reduced equipment downtime.

**Data Analyst** 

Eclerx Services Ltd.

Jun 2019 - Oct 2021

Mumbai, MH, India

- Engineered a backend system for an EdTech venture on **AWS**, covering data gathering and personalized career, learning content, and job role recommendations for over 10,000 user profiles.
- Harnessed machine learning models for targeted career and course suggestions, enhancing user engagement and learning outcomes by tailoring recommendations to individual profiles.
- Revamped a chat analytics platform analyzing 12,000+ customer interactions to **extract key insights on customer** sentiment, agent performance, and sales engagement.
- Fine-Tuned an NER model **to tag entities like customer issues and agent greetings**. Identified trends in complaints, promotions, and service efficiency, resulting in a 20% increase in customer satisfaction.

### **PROJECTS**

#### **Distributed Data Processing and Visualization Pipeline**

- Built a scalable data pipeline by deploying Apache Spark on Jetstream cloud to process 10GB+ data, integrating PySpark workflows for daily transformation of 500K+ records, and storing 1M+ entries in a sharded MongoDB cluster with high availability.
- $\bullet$  Enabled insightful analytics by generating 10+ weekly statistical visualizations using Seaborn, accelerating trend discovery and enhancing decision-making efficiency by 35–40%

#### **Weather Data ETL Using Kafka**

- Architected a scalable 3+ **multi-node Kafka** infrastructure with country-wise topics, **enabling parallel ingestion** and improving real-time streaming efficiency by ~20%.
- Programed Kafka producers and consumers to stream weather metrics into **PostgreSQL**, supporting ETL on 100K+ records daily.
- Configured Kafka brokers, topics, and consumer groups to **ensure high ingestion reliability** (~99%), enhancing pipeline stability.

# **EDUCATION**

**Indiana University Bloomington** 

Masters (MS) in Data Science: (CGPA: 4.0 / 4.0)

**University of Mumbai** 

Bachelors of Engineering (BE) in Computer Science

Bloomington, IN, US

Jul 2015 - May 2019

Mumbai, MH, India

Aug 2023 - May 2025

#### CERTIFICATION

- AWS Certified AI Practitioner
- Alteryx Designer Core Certification
- Microsoft Certified: Power BI Data Analyst Associate
- AWS Certified Machine Learning Engineer Associate
- Astronomer Certification for Apache Airflow Fundamentals
- Databricks Certified Data Engineer Associate (InProgress\*)