

# Brejesh Balakrishnan

Machine Learning Engineer | Data Scientist

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LinkedIn | GitHub | Streamlit Portfolio | Huggingface Portfolio

## Summary

ML Engineer / Data Scientist with 1+ year experience in enterprise software at Accenture (financial services modernization for TIAA) and a strong ML portfolio spanning **MLOps, AWS SageMaker deployments, computer vision, NLP, and predictive modeling**. Comfortable across the end-to-end lifecycle: data prep, feature engineering, training, evaluation, deployment, and monitoring.

## Skills

**Languages:** Python, SQL, Java

**ML/DL:** scikit-learn, XGBoost, TensorFlow, PyTorch; classification, regression, deep learning, NLP, computer vision

**MLOps/Cloud:** AWS (SageMaker, S3, Lambda), MLflow (experiment tracking/model registry), Docker, Git, CI/CD

**Data & Visualization:** Pandas, NumPy, EDA, feature engineering, model evaluation; Streamlit, Power BI, Matplotlib, Seaborn, Jupyter

## Experience

### Accenture (Accenture in India)

Bengaluru, India

Advanced Application Engineering Analyst

Jul 2024 – Present

- Modernized a legacy enterprise application for financial services client **TIAA**; contributed to backend and UI enhancements.
- Enhanced **API integrations**, improved front-end responsiveness, and participated in **CI/CD** deployments.
- Collaborated with backend and QA teams to implement and refactor core business modules.
- Tech:** Java, Spring Boot MVC, Angular, Gradle, REST APIs, Git.

### UnisLink

Chennai, India

Intern

Jul 2023 – Aug 2023

- Researched approaches for **natural language querying** for database interactions (NL-to-SQL problem space).
- Assisted in implementing **SQL Server replication** and synchronization; gained hands-on experience in data consistency workflows.

### Yaltech Global Consulting

Tiruchirappalli, India

Analytics Intern

Jul 2022 – Sep 2022

- Built and tested ML models (regression/classification) using **Python** and **scikit-learn** on structured datasets.
- Performed EDA using Pandas/Seaborn; documented cross-validation outcomes and model evaluation metrics.

### TREC-STEP (Technology Business Incubator)

Tiruchirappalli, India

Intern

Apr 2021 – Jun 2021

- Supported proposal development for **EU Horizon 2020** (Integrated Local Energy Systems) and **CIFAR Responsible AI (STAR RAISE)**.
- Prepared reports and conducted funding-oriented data research; supported ecosystem-building programs (climate innovation, inclusion).

## Selected Projects

### Customer Churn Prediction (End-to-End MLOps)

GitHub

- Built a production-style churn system: automated preprocessing/feature engineering, **XGBoost** training, evaluation, and deployment.
- Implemented **MLflow** experiment tracking/model versioning, scheduled retraining workflows, and performance monitoring for reproducible iteration.

### Inventory Bin Count Classifier (AWS SageMaker Capstone)

GitHub

- Developed a computer vision pipeline to classify warehouse bin item-count (1–5) from images using **PyTorch (ResNet50)**.
- Deployed on **AWS SageMaker** with S3 I/O, scalable inference endpoints, monitoring, and Lambda-based automation patterns.

### Disaster Tweets Classification (NLP Benchmarks)

GitHub

- Benchmarked multiple architectures (fine-tuned **BERT**, CNN, transformers, ensembles) for real vs non-disaster tweet classification.
- Implemented preprocessing, tokenization, systematic evaluation, and analysis of model strengths/weaknesses for real-world monitoring use cases.

## Education

**B.E., Electronics and Communication Engineering**, College of Engineering, Guindy (Anna University), Chennai

Jun 2020 – May 2024 | **CGPA: 8.54/10**

## Certifications

Udacity: **AWS Machine Learning Engineer Nanodegree** (Dec 2025) | Oracle: **OCI Data Science Professional** (Oct 2025 – Oct 2027) | IBM (selected): Tools for Data Science; Python for Data Science, AI & Dev; Databases & SQL for DS (Nov–Dec 2025) | Cisco: **CCNA v7 Intro to Networks** (Jun 2023)