

Abhiroop Bhattacharyya

Backend Developer — Aspiring ML & Data Science Engineer
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LinkedIn — GitHub — Portfolio

Summary

Backend Developer (3+ yrs) with expertise in Python/Django and scalable APIs, now transitioning into Machine Learning & Data Science. M.Tech in Data Science with hands-on experience in preprocessing, model development, deployment, and interactive apps. Skilled in XGBoost, Hugging Face, MLflow, Streamlit, and currently advancing in Generative AI through the Applied GenAI Cohort. Passionate about bridging backend engineering with AI to deliver impactful, production-ready solutions.

Technical Skills

Backend: Python, SQL, Java, Django, DRF, FastAPI, Flask

ML/DS & Tools: Scikit-learn, TensorFlow, PyTorch, XGBoost, Hugging Face, MLflow, Streamlit, PostgreSQL, MySQL, MongoDB, AWS S3, GitHub, PyTest, Postman

Projects

Credit Risk Predictor (XGBoost + Streamlit)

- Built a Streamlit app with preprocessing (imputation, encoding, scaling) and integrated an XGBoost model which delivers real-time loan default predictions, significantly reducing assessment time.
- Implemented preprocessing pipelines for robust input handling and model readiness.
- Integrated model inference into the app for on-demand predictions and user interaction.

Mall Customer Segmentation (K-Means)

- Applied K-Means clustering with the elbow method to determine optimal k - identified 5 distinct customer segments enabling targeted marketing.
- Visualized clusters using Matplotlib and Seaborn to inform stakeholder decisions.
- Packaged segmentation output for actionable marketing strategies and insights.

Experience

Divergenic Tech Solutions

Jul 2023 – Present

Backend Developer, Pune

- Migrated legacy Node.js APIs to Django REST and redesigned endpoints which reduced API response times by 30% and improved client dashboards.
- Optimized database queries and refactored endpoints leading to improved performance and scalability.
- Integrated PostgreSQL and MongoDB, implemented RBAC, and configured AWS S3 storage which enabled secure, scalable multiuser chart sharing.
- Designed end-to-end dashboard features with monitoring and role-based access to support production use.

Yatra

Jun 2022 – Jun 2023

Backend Developer Intern, Gurgaon

- Built a centralized logging system using Spring AOP which improved traceability and reduced troubleshooting time by 50%.
- Addressed inconsistent audit trails to enhance monitoring and incident resolution for operational stability.
- Documented logging and monitoring flows to aid in future maintenance and incident investigation.

Education

IIIT Vadodara – M.Tech. in Data Science (CGPA: 8.31)

Sep 2021 – Sep 2023

VIT University, Chennai – B.Tech. in Computer Science (CGPA: 8.21)

Jan 2016 – Dec 2020

Certifications

100x Applied Generative AI Cohort (Ongoing)

Python for Data Science — Data Science Methodology — Tools for Data Science (Coursera)