

ROHANRAJE M. BHOSALE

Data Scientist

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SUMMARY:

Data scientist with hands-on experience building predictive models and time-series forecasts to drive growth and operational efficiency. Skilled in Python, SQL and advanced machine learning with a track record of automating analytics pipelines, designing and analyzing A/B experiments, and translating insights into data-driven acquisition and product strategies. Proven collaborator comfortable partnering with marketing, product and leadership teams to deliver statistically-sound recommendations.

EXPERIENCE

Project 550 – **University of Massachusetts Dartmouth.** **January 2025- December 2025**

- Extracted, cleaned, and validated **6.4GB+ multi-source datasets** to support **viewership, engagement, and impressions forecasting** across simulated media platforms
- Conducted **exploratory analysis, variance analysis, and hypothesis testing** to identify key drivers of audience behavior and performance volatility
- Built and validated **regression, time-series, and machine-learning models to forecast trends and support planning and yield optimization use cases**
- Developed **forecast accuracy metrics, stability checks, and drift detection** to support production-level monitoring
- Designed **automated dashboards and visual analytics** to communicate model outputs, confidence intervals, and business impact to **non-technical stakeholders**

BOTLOT - **Data Science Intern** **May 2025 - Aug 2025**

- Analyzed **large-scale behavioral** datasets to uncover engagement trends, anomalies, and growth opportunities
- Built **SQL-based analytical pipelines** supporting recurring reporting and ad-hoc business analysis
- Developed and validated **predictive models** to evaluate system performance and user behavior patterns
- Supported **A/B testing, KPI definition, and feature impact analysis** for product and business stakeholders
- Collaborated with engineers to **deploy analytics into production workflows**, ensuring data quality and reliability

University of Massachusetts Dartmouth – **Student Data Operations Analyst** **January 24 – December 2025**

- Automated **operational analytics workflows using Python**, improving data reliability and reducing manual errors across **200+ daily transactions**
- Maintained **99%+ data accuracy**, supporting trusted reporting and downstream analysis
- Analyzed operational bottlenecks and delivered **clear, actionable insights** to non-technical partners, improving turnaround time and service efficiency

Sahyadri Polytechnic Sawarde - **Assistant Professor (Data Science)** **June 23 - January 2024**

- Designed and built Python- and SQL-based analytics tools to streamline reporting and improve decision-making speed.
- Used regression, classification, and statistical analysis to study academic performance and optimize evaluation processes.
- Developed batch-processing systems for grading and plagiarism detection, significantly reducing turnaround time.
- Mentored multiple technical teams, guiding students through project design, data analysis, and ML fundamentals.
- Ensured data quality and reproducibility through validation checks and clear documentation.

Trismus Healthcare Services - Maharashtra, India - **Machine Learning Engineer** **January 2022 - June 2023**

- Built data preprocessing and feature engineering pipelines for large medical imaging datasets.
 - Developed and evaluated deep learning models to support diagnostic use cases, focusing on performance and reliability.
 - Performed data quality checks and audits to ensure datasets were clean, consistent, and suitable for modeling.
 - Collaborated with cross-functional teams to prepare models for real-world deployment.
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PROJECTS:

Audience & Campaign Performance Forecasting Framework

- Designed and built Python- and SQL-based analytics tools to streamline reporting and improve decision-making speed.
- Used regression, classification, and statistical analysis to study academic performance and optimize evaluation processes.
- Developed batch-processing systems for grading and plagiarism detection, significantly reducing turnaround time.
- Mentored multiple technical teams, guiding students through project design, data analysis, and ML fundamentals.
- Ensured data quality and reproducibility through validation checks and clear documentation.

Sports Market Modeling

- Analyzed historical sports data to model outcomes using **probability distributions and regression**
- Explored pricing dynamics **for moneyline, spreads, and totals** using predictive features
- Evaluated performance using accuracy, calibration error, and simulated P&L metrics

Large-Scale Market Intelligence System

- Processed thousands of documents per day using Spark to extract trends and signals from unstructured data.
- Applied clustering and time-series techniques to identify emerging patterns over time.
- Delivered insights through BI dashboards to support strategic decision-making.

Retrieval-Augmented Generation (RAG) Portfolio Assistant

- Designed a retrieval system that combined language models with a vector database to improve response accuracy.
- Built embedding and retrieval pipelines to efficiently search and surface relevant information.
- Deployed the system on the cloud and monitored performance to ensure reliable response times.

Audience & Product Metrics Monitoring System

- Built a simulated analytics dashboard to track user activity, retention, and conversion metrics.
- Wrote SQL and Python scripts to generate metrics and flag unusual behavior or anomalies.
- Used the dashboard to explore how product changes could impact user engagement.

SKILLS:

Data Analysis & Automation: Python (pandas, NumPy), SQL, PySpark

Marketing & Business Analytics: Campaign Performance Analysis, Forecasting & Trend Analysis, KPI Design & Optimization

Visualization & Communication: Tableau, Power BI, Matplotlib, Plotly, Databricks

Core Strengths: Ad-hoc Analysis, Process Automation, Attention to Detail, Cross-functional Collaboration

EDUCATION:

University of Massachusetts, Dartmouth - master's in data science

Expected Graduation: December 2025

Bachelor's-equivalent quantitative foundation through advanced coursework in statistics, machine learning, databases, and analytics

Relevant Courses: Machine Learning, Predictive Analytics, **Database Designs**, Adv. Mathematical Statistics, Advanced Python and R for Data Science, Data Visualization.

Research Publication : Bibliometric Analysis of Machine Learning and Text Mining Algorithms for Diagnosis of Leukemia. ([link](#))

CERTIFICATIONS: Modern Computer Vision™, PyTorch, Tensorflow2 Keras & OpenCV
PMI-ACP Certification: Adopting an Agile Approach