Rohit Akole, MSTM

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Aspiring data enthusiast with a strong foundation in Data Science methodologies. Proficiency in programming, machine learning, statistical analysis, and data visualization. Ability to tackle complex data challenges with a focus on harnessing the power of data to drive innovation, make informed decisions, and contribute to the development of data-driven solutions that align and positively support business goals and performance.

EDUCATION

University of Connecticut, School of Business – Hartford, CT May 2025
Master of Science in Business Analytics and Project Management, *Concentration: Data Science*

University of Bridgeport, School of Engineering – Bridgeport, CT May 2019
Master of Science in Technology Management, Concentration: IT and Big Data

North Maharashtra University, School of Management – Jalgaon, India May 2015
Bachelor of Business Management, Concentration: E-Commerce

TECHNICAL SKILLS

Programming: Python, SQL, R Programming, Machine Learning, Django
Tools: PyCharm, Jupyter Notebook, Tableau, SAS Studio, PowerBI, ESP Scheduler, RStudio, SSIS, SSMS, MS Visio, GitHub, MS Excel, MS Access, Google Data Studio, Google DataPrep, SAS JMP, Office 365, Figma (UI Tool)

PROJECT EXPERIENCE

Insurance Fraud Detection Using Machine Learning

- Engineered and tested multiple machine learning models (Logistic Regression, Decision Tree, Random Forest) to detect insurance fraud, achieving a precision of 92% and a recall of 88%.
- Preprocessed and analyzed 50,000+ insurance claims data, performing feature selection and extraction which improved model accuracy by 15%.
- Implemented the final Random Forest model with hyperparameter tuning, reducing false positives by 20% and overall fraud detection rate by 25%, leading to a projected annual savings of $500,000.

Sentiment Analysis of 2020 US Presidential Election Tweets

- Analyzed sentiment of over 1 million tweets related to the 2020 US Presidential Election using advanced natural language processing (NLP) techniques and Python libraries such as NLTK and TextBlob.
- Engineered and fine-tuned machine learning models (Logistic Regression, SVM, Random Forest) to classify tweet sentiments, achieving an accuracy of 89% and an F1-score of 0.85.
- Extracted and visualized sentiment trends over the election period, revealing key shifts in public opinion during debates and major campaign events, using Matplotlib and Seaborn.
- Developed an interactive dashboard with Plotly and Dash, providing real-time sentiment analysis and trend visualization, increasing accessibility and insights for stakeholders by 40%.

Health Insurance Marketplace Data Analysis and Report Automation

- Executed data transformation via SSMS, integrating and cleaning data from various sources to create a consolidated dataset of 400,000+ records. Remedied 95% of null values with defaults, boosting data quality and accuracy.
- Engineered a Python script cutting down report generation time from 60 minutes to under 2 minutes (97% time-saving). Exported data directly from SQL to an Excel file. Revamped column width, and added filter options to all columns, and replaced empty columns with 0 in the Pivot table for revised data presentation and analysis.
- Leveraged Pandas, Openpyxl, Xlsxwriter, PyODBC, and SQLAlchemy, diminishing manual labor by 95%.
- Yielded annual time savings of over 500 hours and improved data accuracy.

PUBLICATIONS

- Rohit Vikas Akole (2021); Operation and Significance of Supply Chain Management (SCM) in Business; International Journal of Scientific and Research Publications (IJSRP) 11(6) (ISSN: 2250-3153).
- Akole, R. V. (2019) Problems and Solutions for Project Management Information Systems. International Journal of Science and Engineering Investigations (IJSEI), 8(87), 80-85.

CERTIFICATIONS

- IBM Data Science, a 9-course professional certification by IBM on Coursera.
- IBM Data Analyst, a 9-course professional certification by IBM on Coursera.
- Advanced Google Analytics.
- Google Analytics for Power Users.