Viraj Vhatkar

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EDUCATION

Master of Science in Data Science, **University of New York at Buffalo, USA**, **GPA: 3.4/4** *Graduated 2024*
Bachelor of Technology, **Vishwakarma Institute of Technology, Pune, India**, **CGPA:8.9/10** *Graduated 2022*

SKILLS

- Languages: Python, C, Microsoft Office, MATLAB, SQL, R
- Database: SQLite, MySQL, PostgreSQL, Oracle
- Other Skills: Tableau, React js, CSS, Statistics, Data Analytics, Exploratory Data Analysis, SAP, ERP, Communication, Critical Thinking, Problem-solving, Azure

PROFESSIONAL EXPERIENCE

State University of New York, Buffalo (USA)
Data Analyst *December 2023 - Present*

- Executed machine learning models to analyze a social network of 4,039 nodes and 88,234 edges using NetworkX and Python, achieving a reduced average path length to 3.69, thereby enhancing forecasting accuracy and operational efficiency.
- Conducted data preprocessing and feature engineering, enhancing network strength by 25% and improving the quality of model predictions.
- Developed over 5 customized reports and ad-hoc analyses, effectively communicating complex data insights to management, facilitating data-driven decision-making.

Photon Legal, Pune (India)
Data Research Analyst *February 2022 - February 2023*

- Leveraged data analytics tools like PatSeer and PatSnap to drive over 12 successful FER and OA filings, increasing strategic planning efficiency by 30%.
- Produced and delivered Annual and Quarterly Business Reviews using Tableau, providing executive leadership with actionable insights into intellectual property trends, opportunities, and risks.
- Improved data representation and categorization by 40%, identifying and integrating new data sources that enhanced forecast quality and accuracy.
- Streamlined HR operations through comprehensive analyses, improving efficiency by 30% and aligning with continuous improvement standards.
- Improved data representation and categorization by 40%, identifying and integrating new data sources that enhanced forecast quality and accuracy.

Orion Instruments, Pune (India)
Predictive Analytical Engineer *April 2021 – February 2022*

- Led the integration of IoT-enabled sensors, including the O gauge pressure Transmitter with Micro 820 PLCs, leveraging Connected Components Workbench for programming and Factory Studio for SCADA configuration, enhancing real-time data exchange and operational efficiency at the University College of Engineering Pune.
- Managed performance and accuracy tests across 9+ testing cycles for sensor systems, significantly enhancing data quality and system functionality, achieving a Mean Absolute Percentage Error (MAPE) of less than 1%.
- Employed advanced data cleansing methodologies and utilized SCADA systems for data visualization and control, empowering decision-support capabilities and fostering seamless collaboration across departments.
- Conducted in-depth analysis using PLC and SCADA data, applying ARIMA and ACF predictive modeling techniques for system optimization and implementing predictive maintenance methodologies to ensure continuous operation of critical systems.
- Generated statistics, tables, and graphs used in quarterly market and statistical reports, aiding in market analysis and strategic decision-making.

PROJECT EXPERIENCE

Strategic Customer Segmentation: Combining RFM Analysis & Kmeans Clustering April 2024

- Segmented 540,000+ customer records using Python and K-Means clustering for targeted marketing.

Machine Learning- Optimizing PyTorch Models for Better Classification Accuracy July 2023

- Achieved 85.5% training accuracy and 71.7% validation accuracy in PyTorch-based neural network model.

Machine Learning- Classification and Regression Models - Spring 2023 March 2023

- Developed Logistic and Linear Regression models with up to 91.04% accuracy and minimal error.

Data Engineering- Apple Through My Eyes May 2023

- Compiled data using Pyscrapy, SQL, and Python; created Tableau dashboard for data visualization and communication.

Machine Learning & Statistical Analysis- HEART FAILURE Prediction July 2023

- Used Logistic Regression and Naive Bayes for 87% accurate heart failure prediction from UCI dataset.

PATENTS

Portable Wearable Smart Medicine Pouch (Patent Grant No: IN 406383) *September 2022*
Innovative Portable Device for Text-to-Braille Conversion (Patent Grant No: IN 511055) *February 2024*

CERTIFICATION

Data Science Bootcamp (Udemy) *2021*
Tableau DataViz Challenge2021 (Tableau) *2021*
Tableau Desktop Specialist (Tableau) *2024*