Priya Patel

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Education

Master of Science in Data Science | SUNY, University at Buffalo — GPA: 4.00 — Jun 2024
Master of Science in Applied Physics | The M. S. University of Baroda — GPA: 4.00 — Jun 2019

Skills

Programming: Python *(Scikit-learn, Pandas, NumPy, PyTorch, TensorFlow)*, MATLAB, R, SQLite, PostgreSQL, Shell
Softwares: Power BI, Tableau, DistillerSR, Git, Apache Spark, Hadoop, Microsoft Excel, Microsoft PowerPoint
Data Science Skills: Machine Learning algorithms, Deep Learning Techniques, Predictive Modelling, High-Performance Computing, Database Management, Time Series Analysis & Forecasting, Survival Analysis, CRM, A/B Testing

Experience

Data Analyst (Graduate Research Assistant) | University at Buffalo, Buffalo — Aug 2023 - Present
- Collected and analyzed portfolio data using Fama-French factors to perform a comparative analysis of two investment approaches: investing every month throughout the year and investing in all months except the summer months.
- Employed a Monte Carlo simulation approach to evaluate the robustness by randomly selecting 30-year investment periods.
- Calculated and interpreted key performance metrics, including the Time-weighted rate of return and Sharpe ratio, to provide insights into risk-adjusted portfolios.

Graduate Teaching Assistant | University at Buffalo, Buffalo — Jun 2023 - Jun 2024
- Facilitating lectures reviews, & recitations for **Problem-Solving with Algorithms in Python** and **Python for Data Science**, for classes of 250 students. Collaborated with instructors in designing assignments and communicating students requirements.
- Teaching Python and SQL in lab exercises twice a week to enhance students' programming and problem-solving skills.

Financial Data Analyst | Dark Horse Stocks, India — Jan 2022 - Jan 2023
- Utilized SQL and Python to automate data collection from BSE and NSE, reducing manual data entry time by 30%.
- Presented detailed financial analysis using statistical models to forecast portfolio performance, and evaluate the impact of investment on various financial scenarios to enhance clients' understanding and confidence in investment choices.
- Maintained dynamic Power BI dashboard to produce weekly market insights and investment recommendations, contributing to an 8% increase in client engagement.

Data Scientist (Research Assistant Professor) | Saurashtra University, India — Jun 2019 - Jan 2022
- Utilized data-wrangling, data-cleaning, and modeling techniques to create a new database by merging data from various government databases using SQL for assessing female education policies impacting over 3,00,000 students.
- Developed and implemented a data analysis plan, and created Tableau dashboards to communicate results with policymakers.
- Provided data-driven insights to policymakers for strategically restructuring the education budget that prioritizes women.
- Delivered lectures for a class of Statistics, Quantum Mechanics & Classical Mechanics for final-year bachelor students.

Graduate Research Assistant | The M. S. University of Baroda, India — Jun 2017 - Jun 2019
- Collected data from Google Scholar and Scopus, comprising more than 2000 publications and citation records of Physicists.
- Investigated and explored Citation Indices to quantify research output of Physicists.
- Calculated various indices and compared those to measure scientific productivity of physicists which were greater than 90%.

Data Science & Machine Learning Projects

Market Trend Analysis and Forecasting Using Statistical Models | University at Buffalo — Aug 2023 - Dec 2023
- Conducted analysis of financial markets using SQL and Tableau to identify trends and economic indicators.
- Developed predictive models using advanced techniques such as LSTM (Long Short-Term Memory) and ARIMA to forecast market trends and movements. And evaluated the models using metrics such as accuracy, precision, recall and F1-score.
- Implemented feature engineering strategies to enhance model performance by 23%.

Airport Database Management in SQL | University at Buffalo — Aug 2023 - Dec 2023
- Performed data normalization utilizing BCNF analysis to enhance the structure and memory efficiency of the database.
- Executed multiple queries using PostgreSQL to extract valuable insights, contributing to informed decision-making processes.
- Adapted query optimization strategies to reduce computation time by 41%.
- Designed a interactive Power BI dashboard to visualize key metrics and trends for intuitive data exploration.

Chronic Kidney Disease: A Data-Driven Diagnosis | University at Buffalo — Jan 2023 - May 2023
- Preprocessed the raw data by handling missing values, feature reduction, and data normalization to ensure model performance.
- Implemented exploratory data analysis to gain insights into the dataset, identify trends & outliers, and select relevant features.
- Developed and implemented multiple statistical learning models, including logistic regression, support vector machines (SVM), decision trees, random forests, and neural networks, using Python and libraries such as scikit-learn and TensorFlow.
- Conducted a comparative analysis of different models' results, assessing performance and suitability for diagnosis.

Certifications

Microsoft Certified: Azure Fundamentals, Deep Learning with PyTorch for Medical Image Analysis, Statistics with R Specialization