PAVITHRA MOORTHY

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EDUCATION

Northeastern University Boston, MA
MS in Data Analytics Engineering (GPA: 3.9) *Aug 2022 – May 2024*
Relevant Courses - Statistical Learning, Data Mining, Database Management, Computation and Visualization, Data Analytics

Anna University Tamil Nadu, India
BE in Computer Science and Engineering (GPA: 3.6) *Aug 2017 – May 2021*
Relevant Courses - Algorithms, Data Structures, Probability, Statistics, Cloud Computing, Artificial Intelligence

WORK EXPERIENCE

Data Analyst | Shell Business Operations, Tamil Nadu, India Jan 2022 – Jul 2022
- Accelerated data retrieval by 30% through ETL optimization of SQL queries for Local Management System data.
- Created real-time Power BI dashboards, contributing to a $10,000 revenue increase in Q2 through insightful analysis.
- Monitored and automated workflows using Power Automate, enhancing stakeholder engagement and responsiveness.
- Collaborated closely with stakeholders and gathered requirements to tailor the portal's website according to user needs.

Data Analyst | Power Sys Zone, Tamil Nadu, India Jul 2021 – Dec 2021
- Executed SQL based ETL processes for e-commerce datasets in GCP BigQuery, ensuring 30% in efficient data access.
- Optimized complex SQL queries, improving 20% performance in aggregating, joining, and filtering large e-commerce data.
- Coordinated with cross-functional teams to develop interactive dashboards using Tableau, facilitating market insights.

Database Intern | Virtusa, Tamil Nadu, India Mar 2021 – Jun 2021
- Designed the database for Traffic Cop WebApp, ensuring 15% efficient storage & retrieval of traffic violation and accident.
- Utilized SQL to create optimized tables, reducing query times by 25% and enabling faster data processing for traffic records.
- Employed normalization and one-to-many relationships between entities, reducing data redundancy by 40%.

Data Science Intern | Barola Technologies, Tamil Nadu, India Mar 2020 – Feb 2021
- Spearheaded a computer vision project to achieve a 20% reduction in accidents through real-time driver fatigue detection.
- Pioneered real-time visual and auditory fatigue alerts, leading to 25% faster driver response and automated vehicle actions that improved safety by reducing potential collision instances by 15%.

PROFESSIONAL SKILLS

- **Technical Skills:** Data Analysis, Machine Learning, Big Data, Data Management, Time Series Analysis, Data Exploration
- **Programming Languages:** Python, SQL, Java, R, C, HTML/HTML5, CSS, JavaScript
- **ML Frameworks:** Pandas, scikit-learn, NumPy, Seaborn, Matplotlib, TensorFlow, PyTorch, NLTK
- **Database:** MySQL, Oracle, PostgreSQL, MS SQL, Cypher, MongoDB, Neo4j
- **Visualization Tools:** Power BI, Tableau, IBM Cognos, Flourish, Datawrapper, Looker, Google Analytics
- **Others:** MS Office suite, G-suite, Git, GitHub, AWS Certified Cloud Practitioner (In Progress)

ACADEMIC PROJECTS

Predictive Analysis for Patient Readmission Rates, Northeastern University, Boston, MA *Jan 2023 – Feb 2023*
- Led end-to-end machine learning pipeline, integrating electronic health records data to predict patient readmissions rate.
- Achieved 87% accuracy with a Random Forest model while incorporating time series analysis for capturing patterns.

Travel Insurance Prediction, Northeastern University, Boston, MA *Jan 2023 – Mar 2023*
- Guided the travel insurance purchase prediction model by implementing data analysis and feature engineering in Python.
- Evaluated diverse classification algorithms (Logistic Regression, Naive Bayes, KNN), achieving a 78% accuracy rate.

Sentiment Analysis on Mental Health, Northeastern University, Boston, MA *Jun 2023 – Jul 2023*
- Supervised an NLP project through analyzing sentiments in 10,000+ mental health-related social media posts.
- Utilized advanced sentiment analysis, including Bidirectional LSTM and BERT architectures, achieving 85% accuracy.

Shoppers Intention Detection, Northeastern University, Boston, MA *Apr 2023 – Jun 2023*
Soft Margin SVM, Neural Networks , ANOVA, chi-square, Pearson, point biserial correlation tests
- Improved customer purchase prediction through EDA, data cleaning, feature selection, and advanced statistical testing.
- Implemented varied Machine Learning models achieving a 78% accuracy rate by optimizing hyperparameters.

Dashboard on OTT, Northeastern University, Boston, MA *Apr 2023 – Jun 2023*
- Created Tableau dashboard for Amazon Prime, Hulu, Netflix, offering insights into content on movie and TV show choices.