

# PAVITHRA MOORTHY

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## EDUCATION

### Northeastern University

Boston, MA

MS in Data Analytics Engineering (GPA: 3.9)

Aug 2022 – Expected May 2024

Relevant Courses - Statistical Learning, Data Mining, Neural Networks, Deep Learning, MLOps, Database Management

### 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, Machine Learning

## PROFESSIONAL SKILLS

- 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
- Certificates: Microsoft Azure Fundamentals, IBM Data Analytics, Google Professional Data Analytics

## 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.
- Developed a dashboard illustrating energy resource extraction influencing 17% of revenue allocation strategies.
- Collaborated closely with stakeholders and gathered requirements to tailor the portal's website according to user needs.

### Data Analyst | Zoho Corp, Tamil Nadu, India

Jul 2021 – Oct 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.

### Data Science Intern | Virtusa, Tamil Nadu, India

Mar 2021 – Jun 2021

- Pioneered implementation of a machine learning model to attain an 85% accuracy rate in forecasting future traffic violations.
- Orchestrated creation of a centralized database system, modifying data retrieval by 30% and elevating incident precision.
- Established an all-inclusive Tableau dashboard, merging user interface and machine learning, resulting in 15-minute faster critical decision-making through real-time data analysis.

### Data Science Intern | Barola Technologies, Tamil Nadu, India

Mar 2020 – May 2020

- 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%.

## ACADEMIC PROJECTS

### Early Sepsis Prediction - MLOps

Present

- Developed an end-to-end MLOps pipeline on Google Cloud Platform (GCP) that collected and processed physiological data from ICU patients in multiple hospital systems, enabling early sepsis detection.
- Orchestrated the pipeline with containerized ML models using Docker and ensured seamless model deployment on GCP Kubernetes Engine for real-time predictions, ultimately improving patient outcomes and healthcare resource allocation.

### Medical Data Extraction using LLM-Based Logic

Present

- Supervised an NLP project leveraging advanced Large Language Models (LLMs) like Llama 2, MPT, Falcon, and Dolly to extract, rephrase, and summarize vital data from medical conversations and dictations, streamlining the medical information.

### Sentiment Analysis on Mental Health

Aug 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

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.