VANDHANA MANIVANNAN

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WORK EXPERIENCE

The University of Texas at Arlington

Research Data Scientist (Healthcare Analytics)

Arlington, Texas

June 2023 - Present

- Led a research project to detect early-stage diabetes using machine learning and ensemble techniques.
- Conducted thorough exploratory data analysis on multiple open-source medical datasets and built prediction models which attained 79% accuracy using Soft Voting Classifier.

Yaane Technologies

Coimbatore, Tamil Nadu June 2019 - May 2021

Data Analyst (Product Analytics)

- Analyzed product usage data using SQL to visualize product categories and boosted savings by 15%.
- Developed data pipelines and ETL processes with Python and Apache Airflow to streamline data integration to analyze user conversion.
- Forecasted KPIs to predict customer demand by ingesting time series data from Oracle databases using Hadoop Distributed File System and reported findings in Looker to personalize marketing strategies.
- Utilized causal inference techniques to analyze how repetitive defects affected product sales, conducting A/B tests to grasp customer behavior decreasing returns by 40%.
- Created Tableau dashboards to visualize and predict future sales trends with an accuracy of 90%.
- Created Macros in Excel to identify and remediate operational bottlenecks and leveraged VBA generating automated inventory reports boosting process efficiency by 35%.
- Translated complex data analytics into actionable strategies for stakeholders through Power BI reports influencing product roadmap decisions.

DClicks

Coimbatore, Tamil Nadu May 2018 - Aug 2018

Software Engineer Intern

- Designed the User Interface using React, seamlessly integrating with the back-end powered by MongoDB and .NET through API endpoints to update upcoming events for a local shopping mall website with over 1 million users.
- Planned release cycles, and implemented CI/CD pipelines to automate deployment stages thereby reducing the deployment time by 40%.

PROJECTS

YouTube Channel Analytics

- Leveraged YouTube Data API to collect data, performed ETL and EDA processes with Python.
- Utilized NLP (NLTK) to analyze and categorize comments and using the insights, conducted predictive analysis with ARIMA and LSTM models to predict subscriber activity. Visualized channel metrics using Power BI.

Flight Delay Analysis

• Leveraged SQL, Pandas, and Matplotlib to analyze a dataset comprising over 5 million scheduled flights, extracting insights on flight delays and cancellations and presented through PowerBI.

Data analysis & data retrieval performance optimization using Redis

- Built a Flask web application that analyses any data set, and imports into SQL database on Azure cloud allowing users to perform complex queries to get information from the data.
- Also measured performance & improved the application's performance for data retrieval using Redis.

EDUCATION

The University of Texas at Arlington

Arlington, Texas

Master of Science in Computer Science (Major: Data Analytics & Artificial Intelligence)

TECHNICAL SKILLS

Languages: Python, SQL, JavaScript

Libraries: Pandas, NumPy, OpenCV, Scikit-Learn, NLTK, Matplotlib, Seaborn, Flask

Databases: MySQL, NoSql, Microsoft Azure, BigQuery, Snowflake

Data Visualization: Power BI, Tableau, OuickSight

Machine Learning Algorithms: Logistic & Linear regression, Naive Bayes, KNN, Decision trees, Time series Analysis

Tools & Workflow: Excel, Hadoop, Spark, Git, Docker, Kubernetes

Core Skills: Data Analysis, Statistical Analysis, Data Visualization, Dashboard Creation, UXD, A/B Testing