Abeer Mathur

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EDUCATION

Pennsylvania State University — University Park, PA

Bachelor's in Computational Data Science, Minor: Mathematics, Statistics **GPA**: 3.4 — Aug. 2020 – May 2024

EXPERIENCE

Data Science Intern — Jun 2023 – Aug 2023

Constellation Energy — Remote, PA

- Redesigned and optimized an Oracle SQL database for a customer-centric application serving 200,000 users by utilizing Agile design practices, resulting in a 44% reduction in database size.
- Identified performance and run-time inefficiencies in API endpoints by developing KQL queries and building an end-to-end performance monitoring PowerBI dashboard, boosting application performance.
- Designed and implemented ETL pipelines in Azure Data Factory to automate data ingestion, transformation, and loading, resulting in the transfer of 128 entities.

Data Scientist (Autonomous Vehicle Project) — Jan 2023 – Aug 2023

Penn State Advanced Vehicles Team — State College, PA

- Built a level 4 autonomous Chevy Bolt for a project partnered with Intel and General Motors.
- Implemented a Python script in Docker to streamline the data collection and calibration processes for LiDAR and Radar systems, resulting in accurate live outputs.
- Enabled seamless integration with "YOLO" machine learning model to detect pedestrians and objects from up to 175m.

Assistant Data Scientist (Addiction Dashboard project) — Oct 2021 – May 2022

Department of Human Development and Family Studies — State College, PA

- Performed exploratory data analysis on patient Geo-location data through SQL and R programming allowing for more accurate analysis.
- Examined the dataset and built functioning data visualizations like charts and digital line graphs in Tableau.
- Analyzed the dataset and synthesized key findings in a formal presentation to my team.

Lead Data Scientist (KCF Industry 4.0 project) — Mar 2022- Apr 2022

KCF Technologies (Automotive Company), Engineering Leadership Society Volunteer — State College, PA

- Collaborated to collect survey data from major automotive companies regarding Industry 4.0 practices.
- Developed visualizations on the survey data using Tableau and presented our findings to company executives, inspiring change in the company's industry 4.0 practices.

PROJECTS

Artificial Intelligence Tic Tac Toe Game | *Java, JOptionpane* — Jun 2021 – Jul 2021

- Employed my knowledge of object-oriented programming, data structures, and algorithms concepts to apply the "minmax" algorithm and build a two-player AI(Artificial Intelligence) Tic-Tac-Toe game in Java.
- Integrated a GUI that supports a two-player system through the JOptionPane library.

Android App Development (CodePath) | *Java, Android Studio* — Jun 2020 - Jul 2021

- Incorporated Agile programming methodologies to create clones of apps such as Instagram, Twitter, and Flicker.

LEADERSHIP

Statistics Club | *Vice President* — Jan 2023 - Present

- Spearheaded club activities, curated social events, and secured sponsors and companies to facilitate enriching talks, trips, and activities for 20+ club members

Abba Java Coffee | *Volunteer Barista* — Aug 2022 – Present

- Serve coffee and help distribute food, clothing, and other goods to students and those in need in the State College community.

50/50 Raffle | *Volunteer Sales associate* — Nov 2022

- Sold $3090 in raffle ticket sales in 3 hours through my excellent communication and negotiation skills.
- Ranked 1st out of 25 sales representatives at the event while being the only individual seller in the group.

TECHNICAL SKILLS

Languages: Python, R,Java, SQL, JavaScript, HTML/CSS, Scala
Frameworks: Android Studio, Figma, Azure, Hadoop, Spark, Tableau, PowerBI, Azure DevOps
Developer Tools: Git, Docker, Linux, Azure, Android Studio, VS Code
Libraries: numpy, sklearn, pandas, matplotlib, XGBoost, dplyr, tidyverse, ggplot2
Techniques: Agile, ETL, Statistical Modeling, Machine Learning, Artificial Intelligence, Data Visualizations, Data Analysis, Data Cleaning, Object-Oriented Programming, CI/CD, DevOps