

Abeer Mathur

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SKILLS

Tools: Python (numpy, sklearn, pandas, matplotlib, XGBoost) * SQL * Java * PowerBI * R (dplyr, tidyverse, ggplot2) * Docker * Linux * Git * Hadoop * Scala (Spark) * Azure DevOps * Tableau * KQL * Android Studio * Figma * Azure

Techniques: Agile * ETL * Statistical Modeling * Machine Learning * Artificial Intelligence * Data Visualizations * Data Analysis * Data Cleaning * Object Oriented Programming * CI/CD * DevOps

EXPERIENCE

Data Science Intern (Database Redesign/API Performance Degradation Analysis)

Constellation Energy

Remote, PA
Jun 2023 – Aug 2023

- 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.
- Analyzed inefficiencies in performance and runtime for API endpoints by writing KQL queries and building a PowerBI dashboard, leading to improvements in performance and runtime.

Data Scientist (Autonomous Vehicle Project)

Penn State Advanced Vehicles Team

State College, PA
Jan 2023 – Present

- Collaborated with a small sub-team and partnered with General Motors to help build a level 4 autonomous vehicle.
- Collected and calibrated (Cepton) LiDAR and (Delphi) Radar outputs by publishing the raw data to a ROS topic.
- Streamlined the Radar data collection process by running a Python script in Docker to convert raw data into usable 3D coordinate data.
- Utilized the data to train a “YOLO” machine learning model to detect pedestrians and objects from up to 175m.

Assistant Data Scientist (Addiction Dashboard project)

Department of Human Development and Family Studies

State College, PA
Oct 2021 – May 2022

- Extracted and cleaned geolocation data pertaining to recovering addicts through SQL and R programming.
- 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)

KCF Technologies (Automotive Company), Engineering Leadership Society Volunteer

State College, PA
March 2022- Apr 2022

- 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.

Artificial Intelligence Tic Tac Toe Game

Personal Project

State College, PA
June 2021 – July 2021

- Employed my knowledge of object-oriented programming, data structures, and algorithms concepts to apply the “minimax” 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)

Personal Project

State College, PA
June 2021 - July 2021

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

EDUCATION

The Pennsylvania State University, College of Engineering

Bachelor of Science in Computational Data Science GPA: 3.40/4.00

University Park, PA
May 2024

Minor: Mathematics, Statistics

Relevant Coursework: Data Structures and Algorithms, Programming in Python, Data Management for Data Science, Statistics, Probability, Artificial Intelligence, Web-based Object-Oriented Programming, Machine Learning, Big Data (Scala, Hadoop).

LEADERSHIP / VOLUNTEER

Statistics Club

Vice President

State College, PA
2023-2024

- Lead club activities, organized club social events, spoke to sponsors and companies to organize talks, trips, and activities for club members.

50/50 Raffle

Volunteer Sales associate

State College, PA
November 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.

Abba Java Coffee

Barista

State College, PA
2020 – Present

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