# Abeer Mathur

**Email**: abeermathur7@gmail.com || **Phone**: 267-300-5345 || **Website:** My_Website

## EDUCATION

**The Pennsylvania State University, College of Engineering**　　　　　　　　University Park, PA
　　Major: Bachelor of Science in Computational Data Science　　　　　　Expected Graduation: 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).

## EXPERIENCE

**Data Science Intern (Database Redesign/API Performance Degradation Analysis)**　　　　Remote, PA
*Constellation Energy*　　　　　　　　　　　　　　　　　　　　　　　　June 2023 – Present
　　•Redesigned and optimized an Oracle SQL database for a customer-centric application serving 200,000 users, resulting in a remarkable 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)**　　　　　　　　　　　　　　State College, PA
*Penn State Advanced Vehicles Team*　　　　　　　　　　　　　　　　　　Jan 2023 – Present
　　• Collaborated with a small sub-team to help build a level 4 autonomous vehicle in a project partnered with General Motors.
　　• Collected (Cepton) LiDAR and (Delphi) Radar outputs by publishing the raw data to a ROS topic.
　　• Calibrated the LiDAR and Radar data by testing and analyzing the outputs in a Docker container.
　　• Streamlined the Radar data collection process through a Python script that provided 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)**　　　　　　　　　　State College, PA
*Department of Human Development and Family Studies*　　　　　　　　　　Oct 2021 – May 2022
　　• Utilized SQL and R skills to extract and clean geolocation data pertaining to recovering addicts.
　　• Examined the dataset and built functioning data visualizations like charts and digital line graphs using Tableau.
　　• Analyzed the dataset and synthesized key findings in a formal presentation to my team.

**Lead Data Scientist (KCF Industry 4.0 project)**　　　　　　　　　　　　　State College, PA
*KCF Technologies (Automotive Company), Engineering Leadership Society Volunteer*　　March- April 2022
　　• Worked collaboratively to collect survey data from major automotive companies regarding Industry 4.0 Practices.
　　• As the lead data scientist, created visualizations on the survey data using Tableau and debriefed my team on my findings.
　　• Led the team and presented our findings to company executives in a 25-minute-long formal presentation.

**Artificial Intelligence Tic Tac Toe Game**　　　　　　　　　　　　　　　State College, PA
*Personal Project*　　　　　　　　　　　　　　　　　　　　　　　　　June 2021 – July 2021
　　• Utilized my knowledge of data structures, algorithms, and object-oriented programming concepts to apply the "minmax" algorithm and build a two-player Tic-Tac-Toe game in Java.
　　• Demonstrated excellent time management and critical thinking skills to break the project into manageable weekly goals.
　　• Integrated a GUI that supports a two-player system through the JOptionPane library.

**CodePath Android Development**　　　　　　　　　　　　　　　　　　　State College, PA
*Personal Project*　　　　　　　　　　　　　　　　　　　　　　　　　June 2021-July 2021
　　• Attained a certification in Android App Development through CodePath.
　　• Incorporated Agile programming methodologies to create clones of apps such as Instagram, Twitter, and Flicker.

## LEADERSHIP/ EXTRACURRICULARS

**Statistics Club**　　　　　　　　　　　　　　　　　　　　　　　　　　State College, PA
*Vice President*　　　　　　　　　　　　　　　　　　　　　　　　　　　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**　　　　　　　　　　　　　　　　　　　　　　　　　　　State College, PA
*Volunteer Sales associate*　　　　　　　　　　　　　　　　　　　　　　November 2022
　　• Made $3090 in raffle ticket sales in 3 hours through my excellent communication and negotiation skills.
　　• Ranked 2nd out of 25 sales representatives at the event while being the only individual seller in the group.

**Engineering Leadership Society**　　　　　　　　　　　　　　　　　　　State College, PA
*Member*　　　　　　　　　　　　　　　　　　　　　　　　　　　　　2020 – Present
　　• Participated in club sponsored projects (KCF Industry 4.0 Project).

## SKILLS

Python (numpy, sklearn, pandas, matplotlib), SQL, Java (JOptionPane), Tableau, R, Docker, Linux, Git, Hadoop, Scala (Spark), ADF.