

# Abeer Mathur

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## EDUCATION

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### The Pennsylvania State University, College of Engineering

Major: Bachelor of Science in Computational Data Science

Minor: Mathematics, Statistics

University Park, PA

Expected Graduation: May 2024

**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

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### Data Scientist (Autonomous Vehicle project)

*Penn State Advanced Vehicles Team*

State College, PA

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)

*Department of Human Development and Family Studies*

State College, PA

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)

*KCF Technologies (Automotive Company), Engineering Leadership Society Volunteer*

State College, PA

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

*Personal Project*

State College, PA

June 2021 – July 2021

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

*Personal Project*

State College, PA

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 Flickr.

### Hackathon (Hack Violet)

*Personal Project*

State College, PA

2020

- Worked collaboratively with engineers from different counties and backgrounds to build a cohesive product.
- Built a “Mental Health Video Diary” journal app using HTML, CSS, and JavaScript.

## LEADERSHIP/ EXTRACURRICULARS

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### 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

- Made \$3090 in raffle ticket sales in 3 hours through my excellent communication and negotiation skills.
- Ranked 2<sup>nd</sup> out of 25 sales representatives at the event while being the only individual seller in the group.

### Engineering Leadership Society

*Member*

State College, PA

2020 – Present

- Participated in club sponsored projects (KCF Industry 4.0 Project).

## SKILLS

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