AI Boot Camp Project 3

Project 3 Final

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Project Overview

Project Purpose / Description

Analyze a problem using machine learning (ML) or neural network:

Project Goals

Goal/Questions to be addressed

- Goals:

o Analyze all 90,885 Colorado crashes that were collected from February 2016 to March 2023.
o Our analysis all Colorado traffic crash data, our accuracy predictions were based on Weather, County and Street.
o To identify the different classifications of crashes and potential impact within each classification.

The Data

Data Sources

- Clean and Consistent

– Inconsistent and Duplicative

Standardization Approach

Approach

Approach taken to achieve goals

The analysis was broken into steps with a Jupyter notebook for each step:

Step1 Build base data
Step2 Analyze weather and county data
Step3 analyze street and county data

Performance was measured.

Best Model: Scikit-learn, Keras, TensorFlow

Performance Improvement after:

- Before Adjustment Duration:
- After Adjustment Duration:

Project Milestones:

•Project ideation – Complete 7/22
•Data fetching – Complete 7/22
•Data exploration – Complete 7/26
•Data transformation – Complete 7/26
•Data analysis – Complete 7/27
•Testing – Complete 7/27
•Creating documentation – Complete 7/29
•Creating the presentation – Complete 7/30

Result/Conclusion

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Result/Conclusion

Summary

Future Considerations

Additional research and data remediation for the issue below: