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Why Tennessee Tornadoes

The members of this team live or have lived in the state of Tennessee. We have noticed a change in the frequency of tornadoes in the state during our collective time living in the state. The team was curious to see what data supports our concerning hypotheses.

The data was obtained from data world and represents tornado tracks from the United States, Puerto Rico, and the US Virgin Islands. For this project we filtered the data for tornadoes in the state of Tennessee. Follow the link below to access our data

https://github.com/clarerobb/Tennessee_Tornadoes/commit/739400549b9f43eae176e9723b7cf34afe49b1a7#diff-2817076e6f91f9a7 987c57ecb439f9f7bddebda85d7489b5af4fc273f9fd0fbc

What will the data show?

Our Research questions for the data to answer are:

- 1. Have tornadoes increased in intensity in the last 50 years in the state of Tennessee?
- 2. What counties are most likely to have more tornadoes?
- 3. Has the frequency of tornadoes in Tennessee increased since 1950?

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Data Exploration

After deciding which data to use, we narrowed our data to just the state of Tennessee. Then used Python and Pandas to search for missing values, removing columns that were providing information that wasn't needed for our research questions, and to adjust values that switched in 1996 with reporting protocols to match the previous years.

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Analysis

Machine learning models will be created to predict the following:

- 1. Magnitude of tornadoes
- 2. Location of tornadoes
- 3. Amount of property damage