

P8160 - Project 3

Baysian modeling of hurricane

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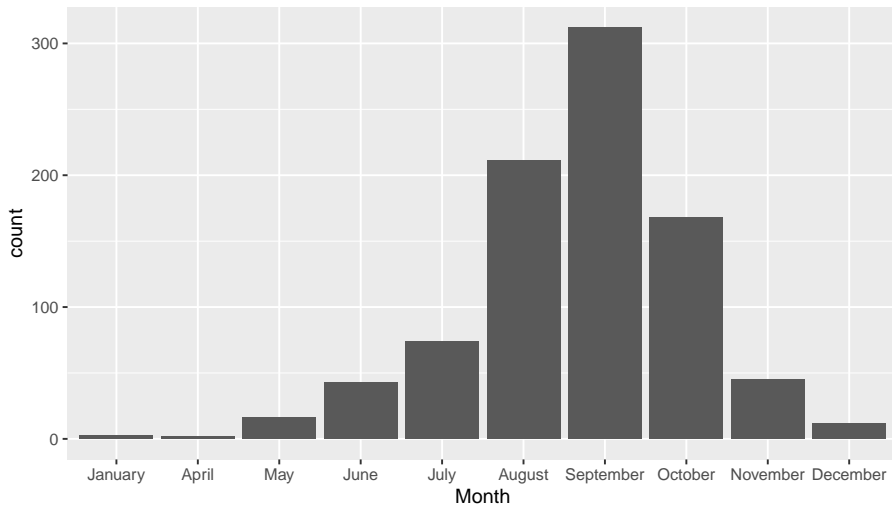
Introduction

- Hurricanes cause fatalities and property damage
- there is a growing need to accurately predict hurricane behavior, including location and speed
- This project aims to forecast wind speeds by modeling hurricane trajectories using a Hierarchical Bayesian Model.

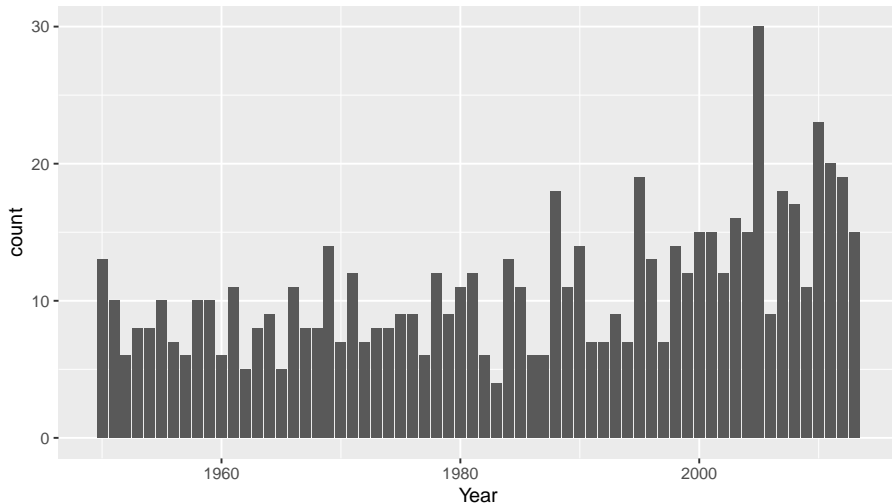
Dataset

- Hurrican703 dataset: 22038 observations \times 8 variables
 - ▶ 702 hurricanes in the North Atlantic area since 1950

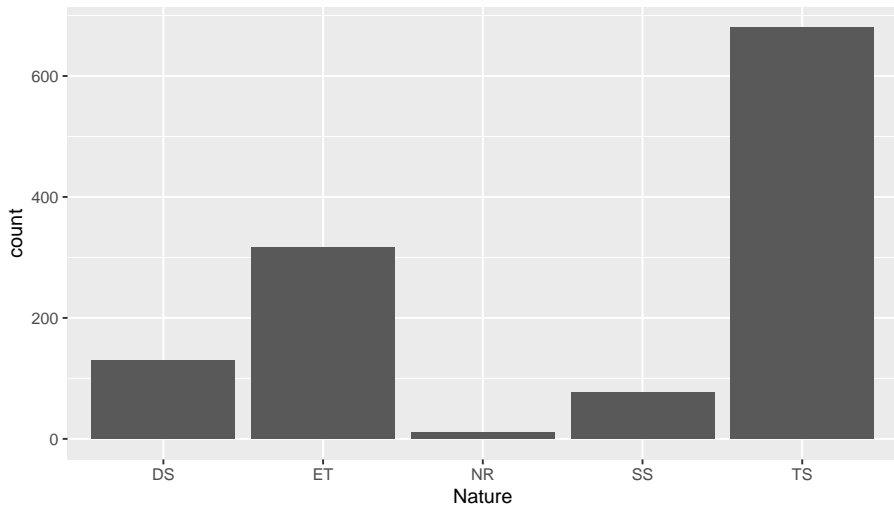
EDA - Count of Hurricanes in Each Month



EDA - Count of Hurricanes in Each Year



EDA - Count of Hurricanes in Each Nature



EDA - Average Speed (knot) of Hurricanes in Each Year

