Animal Shelter Trends

This project uses the Austin Animal Center Shelters animal outcome dataset in order to understand which factors will be affecting adoption for animals at this shelter. In doing so, the goal of the project is to find areas of interest that all shelters should focus on and analyze their own data to better the outcomes for those taking longer or never getting adopted. The dataset includes information such as the type of animal (dog/cat), the breed, age, if they are spayed/neutered, and outcome for this animal. Cleaning of the data was done by removing unnecessary columns and eliminating rows which held missing data to prevent bias.

From there adjustments were made to the age of the animals' column in order to create a consistent unit for understanding in the data. Exploratory data analysis followed with visualizations of distribution for ages, outcome types, and most common breeds. After EDA, further analysis was done using more visualizations and models.

First a linear regression model was done to find the relationship between age and the likelihood of adoption. Followed by visuals showing the top different breeds that were adopted for every month of the year. Finalizing analysis by a logistic regression model showing the top features which affected adoption

After coding, results were interpreted and used to make recommendations for the future and answer possible audience questions on the data or suggestions.