Shelter Animal Outcomes

- Problem: Predict outcomes for shelter animals using intake information (cat or dog, age, sex, neutered/spayed, breed, etc.)
- Data: Austin Animal Center dataset via Kaggle—animals taken in from October 2013 through March 2016 (26729 rows x 7 features).
- Hypothesis: Younger animals that have been spayed or neutered are more likely to have positive outcomes (i.e., adoption or return to owner).

House Prices

- Problem: Predict sale prices of residential homes using property features (lot size, type and style of dwelling, construction date, etc.)
- Data: Ames Housing dataset via Kaggle—sales of residential homes in Ames, Iowa, from 2006 through 2010 (1460 rows x 79 features).
- Hypothesis: Larger and newer homes sell for higher prices.

Diabetes Patients

- Problem: Predict whether diabetes patients will be readmitted to a hospital, using patients' demographic and medical history data.

- Data: Diabetes Dataset via UC Irvine Machine Learning Repository—patient records obtained from an automatic electronic recording device and paper records (101766 rows x 49 features).

- Hypothesis: The likelihood of readmission increases with the number of hospital visits in the preceding year and increases in dosages of prescription medications.