## IST 718 - Big Data Analytics Project Checkpoint 1 Submission

## Team Members & Roles

- Brian Taylor
  - Modeling
  - Forecasting
- Matthew Stockhaus
  - Report/Case Study Framework and Development
  - o Data Wrangling/Merging/Preparation/Pre-processing
- Sathish Rajendiran
  - Descriptive Analysis
  - Sentiment Analysis

## What is your Question?

- What is our question?
  - How has COVID-19 pandemic changed the real estate market in the United States in the last year?
- Problem we are trying to solve.
  - Due to COVID-19 changing social and professional constructs, people have moved for various reasons to different parts of the country. From the news, online publications, and personal experiences, we can see first-hand that this has had a significant impact on the overall housing market. Our goal with this project is to use our selected datasets to see over a three-year period, focusing on the last year particularly, the trends where people are moving from and where they are moving to, to gauge which areas of the country are seeing population increases and the associated impacts on housing costs.
- Why is the problem important to you or your company?
  - For our team, this has been an important problem as all members have recently moved, bought a
    home, or are in-process of buying a home. In some way, each of us have felt the impacts of this
    new landscape, and the new COVID-19 housing market.

## What are your data?

- What is (are) the source(s)?
  - Open-source Zillow dataset
  - Mortgage Interest Rates dataset
- Do you have them? Can you get them?
  - Yes we have the data
  - Yes we can get the additional data needed to support our project
- Relationships between datasets?
  - Location (geographic)
  - Time series (date range)
- Basic dataset metrics
  - Rows: 30,000 +
  - Columns: 30 +
  - Attributes: Geographic (state, zip, city)
  - Temporal (monthly, days-to-pending, days-to-accepted-offer)
  - Dwelling type (condo, single-family, etc.)
  - Sale Prices, Price Cuts (by %), List Price
  - Interest Rates (by month)