Capstone Project 2: Project Proposal

Based on the feedback on my initial ideas and discussing them further with my mentor, we picked **Austin Airbnb problem** as my Capstone Project 2.

- What is the problem you want to solve?

  Predicting Airbnb rental pricing which is important to get right, particularly in Austin during events such as ACL Festival and SXSW. There is lots of competition and even small differences in prices can make a big difference. Price too high and no one will book or price too low and you'll be missing out on a lot of potential income.

- Who is your client and why do they care about this problem?

  The client in this case would be Airbnb and they care about this problem because by suggesting the right rental price for each property, they can help their hosts to be profitable while at the same time helping their guests to get fair rental prices.

- What data are you using? How will you acquire the data?

  The dataset that I would use in this project is listings.csv file which was compiled on March 17th, 2020 that I've downloaded from http://insideairbnb.com/get-the-data.html for the city of Austin.
  There are 11,668 rows and 106 columns.

- Briefly outline how you'll solve this problem. Your approach may change later, but this is a good first step to get you thinking about a method and solution.

  First, we will use the zip codes to differentiate north, south, central, east and west regions for better analysis. There are a lot of features in this dataset and after doing some EDA, some of them can be dropped if they don't add any benefit to our model predictions. The remaining features can then be transformed, split into training and test sets and be ready for the ML part of the problem.

- What are your deliverables? Typically, this includes code, a paper, or a slide deck.

  I'll write my code in Python (Jupyter Notebook), write up a consolidated report and I will also have a slide deck to present my findings.