Where should I buy a house

in Austin

Both a nice home and an wise investment

Hongxu Dong

March 13, 2021

1. Introduction

1.1. background

My husband and I work and live in Houston, Texas. We both have a well-paid job in oil&gas companies. Starting from last year, we began to seriously think about how to invest our money, with high return rate and low risk. No matter how many different options we have, buying a house as an investment will definitely be a great one, especially under the circumstance that the interest rate for mortgage is historically low in U.S. However, where we should buy a house becomes an essential topic. None of an ambitious investor would want to buy a house in Houston; with the seemingly unlimited land to use, no one would like to pay much to buy an older, smaller, or worse school-district house when better options are everywhere available. Plus, the house prices have been fluctuating up and down in recent years, and no one is super optimistic about its future trend with the downhill of oil&gas industry. So our target, naturally becomes Austin. Austin is only two hours drive from us, and it’s all known to be a booming city, where more and more high-tech companies originally based in bay area have either moved or planned to move to. And who knows, we may also move there in the near future. With the Austin house price rocketing, more friends like us are considering buying a house there, before it’s too late.

1.2.Problem&Audience

For young professionals living nearby who plan to buy a house as both an investment method and a potential future home, we want the houses to meet the following three main requirements: 1) it should be located in a convenient area, close to either offices of big companies or transportation stations, as well as good rating restaurants and bars. This is important not only because we may want to live there in the future, more importantly it will make it a popular location for renting; 2) the neighborhood should be safe with low crime rate; 3) the house price should be increasing (which is easy to meet in Austin), and also in a range that we can afford.

In summary, we want to find one or a few good neighborhoods in Austin, where life is convenient and house price is still affordable while having good increasing potential. How do we want to define ‘affordable’? Having a rough collection of salaries information of friends of mine ,at similar age and with comparable education background, I believe a house in the price range of 400 to 1000 thousands would be affordable, of course with a mortgage which means our down payment would be about 100 to 200 thousands.

The final recommendation of this analysis can be used as a guide for myself, and those young professionals who are considering buying a house in Austin, as an investment, or as their own home.

2. Methodology

2.1. Data source

In order to evaluate the neighborhoods in Austin from the above three different aspects, we will need to utilize the data from three resources: 1) Foursquare for the venues in each neighborhoods in Austin; 2) crime rate data of each neighborhood in Austin; 3) house price statistics of each neighborhood in Austin.

2.2. Data acquisition

2.2.1. Venues data from Foursquare

Using Foursquare API, we can request all the venues in all neighborhoods in Austin. The neighborhoods can be further clustered according to the most popular venue types, which will provide an indicator as to which neighborhood is convenient for specific needs

2.2.2. Crime data

Crime data of each neighborhoods in Austin can be found from [austintexas.com](http://austintexas.com). The search will be limited to recent one year (from March 1st 2020 to March 1st 2021) and the list will be scraped using beautifulsoup library and key information including address and crime type will be scraped to form a table. The final statistics will be compared with the report from NeighborhoodScout.com.

2.2.3. House price data

The average or median house price by neighborhood in Austin will be obtained from the report in Texas Real Estate Research Center (<https://www.recenter.tamu.edu/data/housing-activity/#!/activity/MSA/Austin-Round_Rock>) and compared with the report in NeighborhoodScout website (<https://www.neighborhoodscout.com/tx/austin/real-estate>).