

Real Estate Affordability for New Grads: What are the most affordable neighborhoods for recent graduates seeking housing?

1. Motivation

Securing affordable and suitable housing options is an ongoing struggle for new graduates. This challenge hit me last year as a junior relocating to Seattle for a summer internship. Understanding the shared experience, this research aims to offer valuable insights into locating the most affordable neighborhoods, considering factors such as housing prices, rental costs, amenities, and proximity to employment opportunities. To gain a overall picture, I will explore a few cities, including New York City, Austin, Seattle, Atlanta, and Denver, each with distinct real estate dynamics.

2. Data Collection

To obtain the data for the project, I will scrape from Zillow. I will use a web scraping tool like BeautifulSoup in Python to extract relevant details such as property prices, rental costs, and neighborhood characteristics (eg. nearby employment, transportation and commuting score, safety score, etc). The scraped data will then undergo cleaning and formatting, and will be stored in a structured format for analysis.

3. Data Analysis

Now that I have the data, several key data analytics techniques will be employed to obtain meaningful insights.

- **Developing a Ranking Score Algorithm:** First, I will develop a weighted scoring equation to evaluate the real estate's affordability based on median housing prices, rental costs, and estimated entry-level salaries for recent graduates. Let's call it "affordability index".
- **Spatial Analysis:** Following that, I will use visualization tools (eg. PowerBI, Tableau) to map and visualize the affordability index across different neighborhoods in each city.
- **Correlation Analysis:** I will explore correlations between housing affordability and factors such as proximity to employment opportunities, public transportation, and amenities.
- **Data Visualization:** I will present the findings using charts, graphs, and interactive maps to effectively show the results.

4. Audience

This research can be relevant and may be beneficial for several target audience:

- **Recent Graduates:** The primary target audience of this research are recent graduates seeking affordable housing options.
- **Employers and HR Professionals:** Companies recruiting recent graduates can use this information to assist their employees in finding suitable housing options

close to the workplace.

- **Real Estate Developers and Investors:** Professionals in the real estate industry can benefit from understanding affordable neighborhoods with growth potential.

5. Deliverables

The project will be delivered in an interactive platform, possibly a website or dashboard, where recent graduates and other stakeholders can explore and compare neighborhoods based on the affordability index. The platform will provide visualizations, recommendations, and insights gained from the analysis of the chosen factors.