Data Science Capstone Project Ideas

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Capstone Project:

Are incomes keeping up with rising home prices (cost of living) in the City of Austin, Texas? Analyzing average home prices (current, and previous growth) and changes in household income, is the area's local incomes keeping up with the sharp rise in property values over the last few years.

Data Source: Zillow

1. What is the problem you want to solve?

    Are incomes keeping up with rising home prices.

2. Who is your client and why do they care about this problem? In other words, what will your client DO or DECIDE based on your analysis that they wouldn't have otherwise?

    My clients are the City of Austin Government and the residents of Austin, especially the low to mid income residents

3. What data are you going to use for this? How will you acquire this data?

    Zillow.com provides home values (average rent, prices, etc) and population data.

4. In brief, outline your approach to solving this problem (knowing that this might change later).

    1-Import and focus Zillow data on City of Austin (proper) homes only.

    2-Clean data

    3-Analyze data and look for trends over time (monthly and yearly changes) for each dataset separately.

    4-Once the two datasets (income and prices) are analyzed, compare both datasets to each other. Are they similar? Which one rises before the other, are both directly related or inversely related.

    5- Use ggplot and other tools needed to create supporting visuals.

    6-Write up analysis in report.

5. What are your deliverables? Typically, this would include code, along with a paper and/or a slide deck.

    Deliverables: Code, a written analysis and summary, as well as graphs, maps, and plots needed to support the analysis and theory.