

**Asteway Kebede**

## **Linear Regression Project Proposal**

**January, 2022**

### **Question/Need:**

- **What is the question behind your analysis? What is the purpose of the model/system you plan to build?**
- **Who benefits from exploring this question or building this model/system?**

Sacramento is a big region and I have found it difficult to find a property that meets my needs without having to spend hours looking on websites. Therefore, I will greatly benefit from this project as well as people living in the region. I hope to make it a generic type of model that will allow me to change the city for future public use.

I would like to build a model that takes in rental property details in the Sacramento region and use the rental price as the target for this project. Craigslist is chosen as the data source because it is one of the more popular websites used in the region by locals. I have over 1200 listings with their details for the past 30 days.

### **Data Description:**

- **What dataset(s) do you plan to use, and how will you obtain the data?**

- **What is an individual sample/unit of analysis in this project? What characteristics/features do you expect to work with?**
- **If modeling, what will you predict as your target?**

I have been working on figuring out the best way to scrape the data using Beautiful Soup. A sample unit would have features such as size in square feet, number of bedrooms, number of bathrooms and other features such as patio or balcony, swimming pool, parking and additional fees associated with it. The target is going to be the rental price of the property. Below is sample of one listing

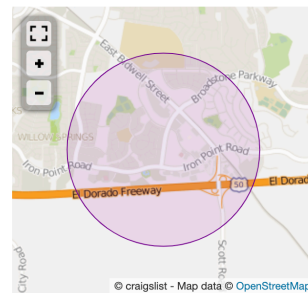
**\$2,502 / 2Br - 1122ft<sup>2</sup> - 2 Bedroom 2 Bath: Currently Available in Amazing Folsom Community:**



**Talavera**  
1550 Broadstone Parkway, Folsom, CA, 95630

Follow The Link Below:  
<http://cl.greystar.com/4tx934>

Call Now: ([show contact info](#)) x 54  
OR Text 54 to ([show contact info](#)) to text our team directly.



© craigslist - Map data © OpenStreetMap  
1550 Broadstone Parkway

**2BR / 2Ba** **1122ft<sup>2</sup>** **available now**

- EV charging
- cats are OK - purrr
- dogs are OK - woof
- flooring: **wood**
- apartment
- w/d in unit
- no smoking
- carport
- wheelchair accessible

Caption

## **Tools:**

- **How do you intend to meet the tools requirement of the project?**
- **Are you planning in advance to need or use additional tools beyond those required?**

So far, I am planning to use the tools I have which are Beautiful Soup to scrape the data and use Python machine learning algorithms to come up with the best model. As I learn more over the next weeks, I hope to introduce more advanced tools.