

A wide-angle photograph of the San Francisco skyline at sunset. The sky is a mix of orange, yellow, and blue, with scattered clouds. The city's buildings are silhouetted against the bright sky, with some windows glowing with light. The water in the foreground is dark and calm, reflecting the colors of the sky. A few small boats are visible on the water.

# Price My Rental

Apartment Price Recommendation Engine

[Get Started](#)

Jon Oleson  
Galvanize DSI  
Spring Cohort 2015

# What is a rental worth?

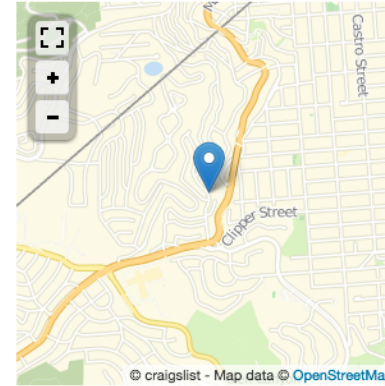
- San Francisco has one of the hottest rental markets in the US, and a ton of variation
- I looked at 9 months of SF craigslist housing rental data, and built a model that accurately predicts market prices for units

# Who might care?

- Landlords trying to determine the market price of their units
- Renters trying to determine if a unit they're looking at is under or over-priced

★ \$2395 / 1br - Sunny Elegant One Bdrm-Hrwd Flrs-Fireplace-Parking-Great View (twin peaks / diamond hts)

Neighborhood



Location

Beds/Baths

801 Burnett Ave.

([google map](#)) ([yahoo map](#))

1BR / 1Ba available jun 15

no smoking

apartment

laundry in bldg

carport

Parking

Description

Sunny one bedroom with new hardwood floors, fireplace and a great view. Bedroom with a great view, good closet space and additional closet space available. Kitchen with electric stove, refrigerator and good counter/cabinet space. Bathroom with shower over the tub. Washer and dryer in the building. One parking stall included and private storage room included. MUNI nearby.

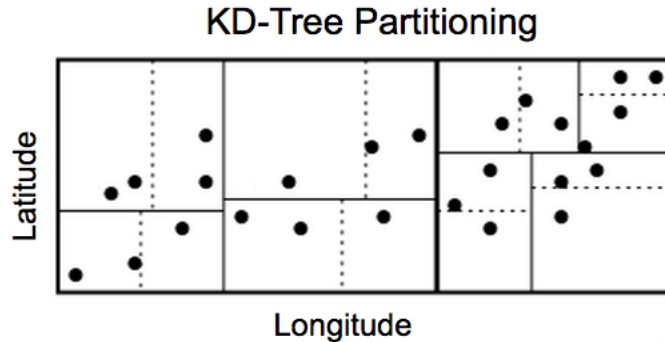
To view, please contact Jolson at ([show contact info](#)) ext. 7138

Applicant please provide  
Proof of employment  
Credit Report  
FICO Score  
Rental History

Sorry no pets

# Techniques

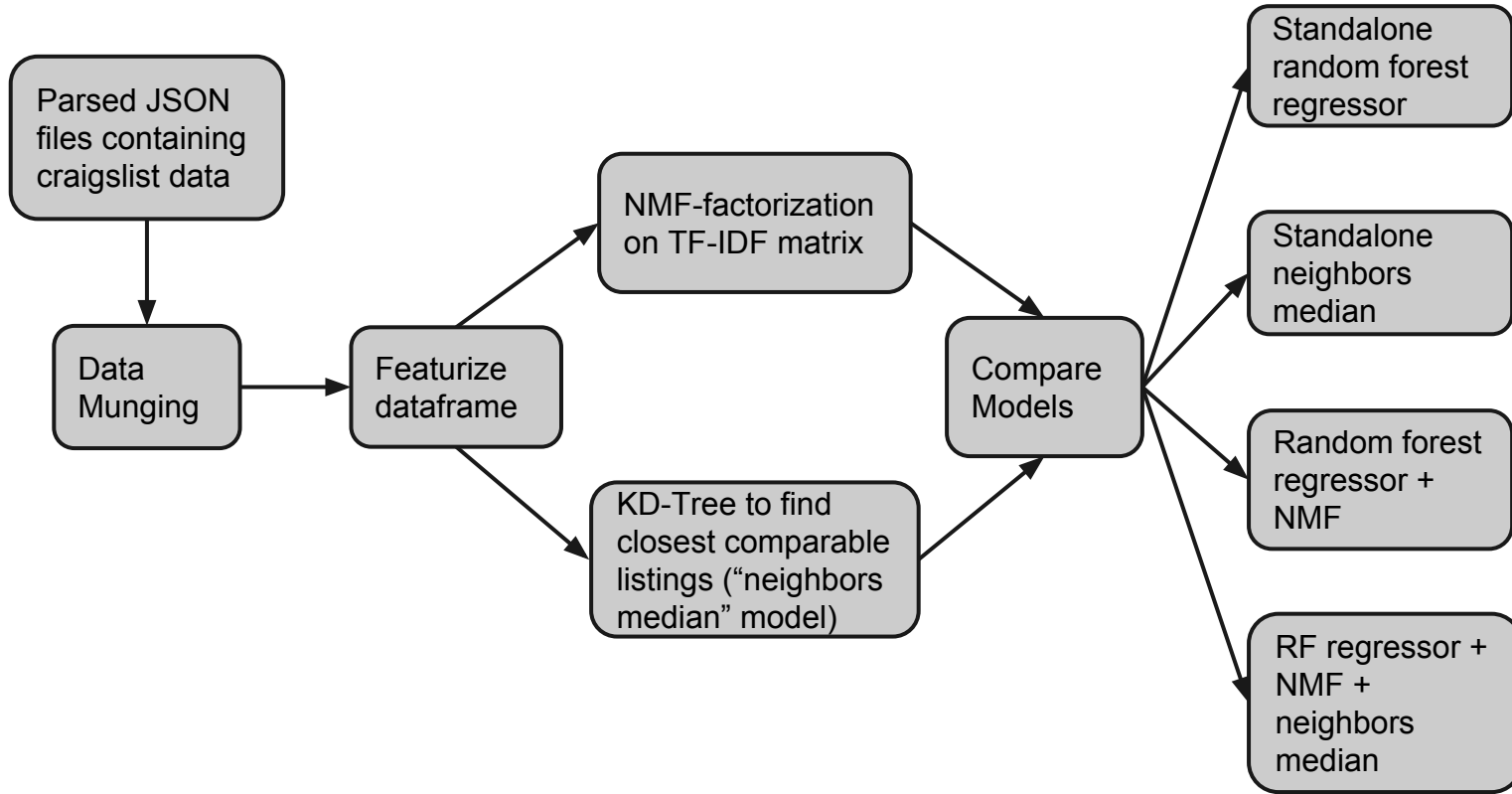
- KD-Trees: Finding nearest-neighbors price medians



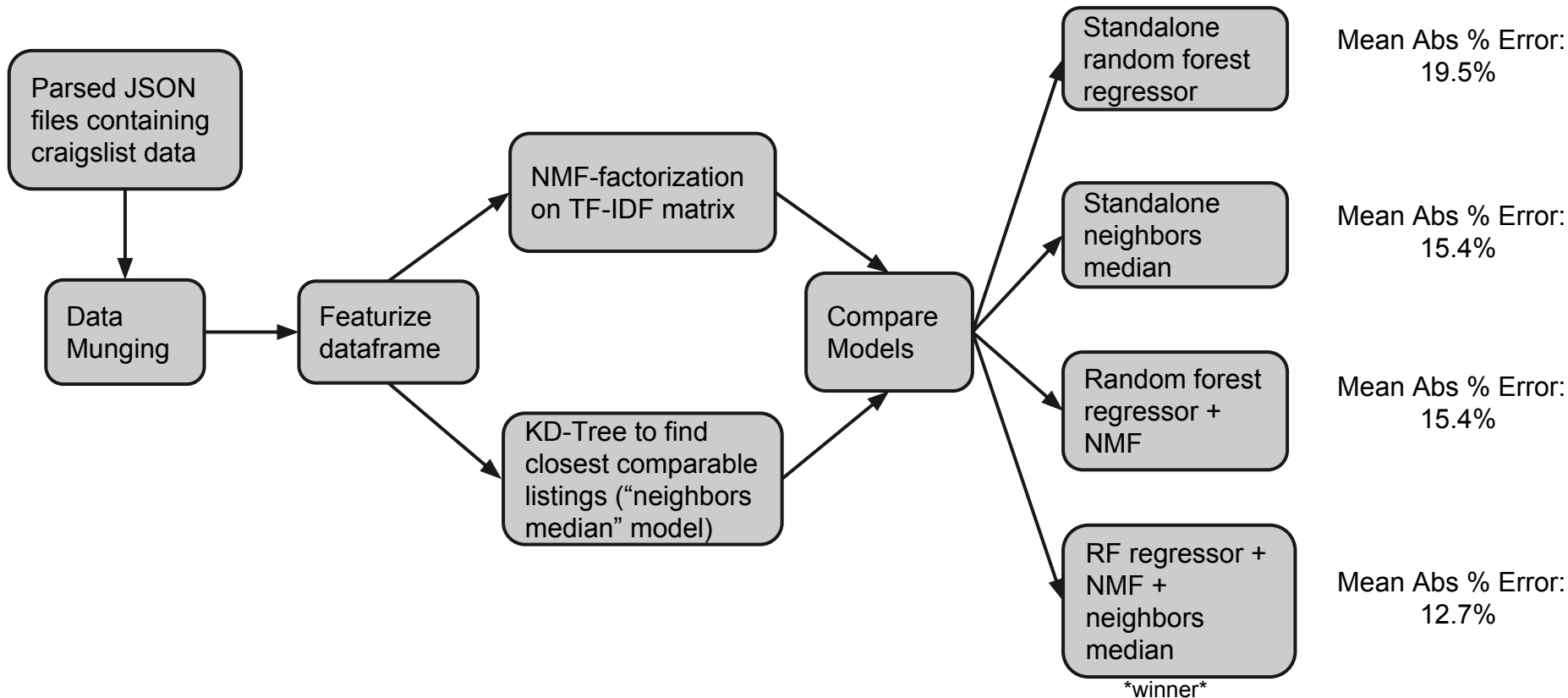
- TF-IDF + NMF: Discovering latent features in listing descriptions

This is a lovely 2 Bedrooms apartment is located in Ultimate Urban Living in Desirable Nob Hill. Lifestyle: 24-hr attended lobby to welcome guests & accept your mail for you. Key-operated elevators for a relaxed ride. Swimming pool, gym, laundry room, Cafe & sit-down Sushi Place in building. Transit Score of 100 and Walk Score of 98: Walking to Shops, restaurants of choice, offices, banks, theaters ... So much time saved to Enjoy your Lifestyle.

Latent Feature 1	Latent Feature 2	Latent Feature 3	Latent Feature 4
0.016546	0.000592	0.001476	0.017305



## Data Pipeline + Model Comparison



## Data Pipeline + Model Comparison



Price My Rental recommends accurate prices for San Francisco rental listings

Taken from actual  
craigslist listing on  
6/15/15

2 baths

2 beds

Fill out the form to get a recommendation:

# Bedrooms:

2

# Bathrooms

2

Address (SF only):

17 wood st

Zip:

94118

Neighborhood:

laurel hts / presidio

**Parking:**

Off-street Parking (e.g. shared garage)

Current/Intended listed price (for comparison):

3950

**Description:**

Laurel Hts

## Off-Street Parking

Listed price on craigslist: \$3950

[illegible]

Submit

# Web app - PriceMyRental.io



Your model-recommended price is: \$3782

Your initial stated price was: \$3950

## About:

Price My Rental predicts prices for rental listings in San Francisco. For landlords, the app can recommend a fair monthly price for your property. For tenants, it can help determine if you're overpaying or getting a good deal.

For more information on how it works, please visit the [GitHub repo](#)

 [Contact Me](#)

[Source on Github](#)

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# Web app - PriceMyRental.io

# Thank you!

I am:

Jon Oleson

[github.com/jonoleson/PriceMyRental](https://github.com/jonoleson/PriceMyRental)

[PriceMyRental.io](https://PriceMyRental.io)

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