Use data, primarily from `sliced_data.csv` to predict the `review_overall` column for a held out brewery and its beers

We've held out reviews of Surly Brewing Company's beers from a select group of reviewers. The object is to predict what these reviewers rated Surly Brewing Company's beers based on how they reviewed other beers.

Please be mindful of the other held out features.

sliced_holdout_data.csv

All columns in `sliced_data.csv` are the same as in this file **EXCEPT FOR**:
`review_overall`
`review_aroma`
`review_appearance`
`review_palate`
`review_taste`
THE ABOVE FEATURES ARE NOT IN THE HOLDOUT SET

sliced_data.csv

`brewery_id` : int unique brewery ID
`brewery_city` : str brewery city
`brewery_state` : str brewery state (if US)
`brewery_country` : str brewery country
`brewery_name` : str brewery name
`review_time` : int unix timestamp of review `review_overall` : float overall rating (what was the overall experience of the beer?)
`review_aroma` : float the smell (malt, hops, yeast, other aromatics)
`review_appearance` : float the look (beer color, clarity, head retention, lacing on the glass)
`review_profilename` : str reviewer username
`beer_style` : str specific type of beer (i.e. American Pale Ale, Belinerweiss)
`review_palate` : float mouthfeel (body, carbonation, warmth, creaminess, astringency, other palate sensations)
`review_taste` : float flavor of malt, hops, fermentation byproducts, balance, finish, aftertaste, other flavor characteristics
`beer_name` : str name of the beer
`beer_abv` : float percent of alcohol by volume
`beer_beerid` : unique beer ID
`beer_category` : str broad type of beer (i.e. Pale Ale, Sour)
`beer_availability` : str whether a beer is available year-round or otherwise
`brewery_review_time_mean` : useless aggregation of unix timestamp ints
`brewery_review_overall_mean` : aggregated overall rating of all beers at a brewery
`brewery_review_aroma_mean` : aggregated aroma rating of all beers at a brewery
`brewery_review_appearance_mean` : aggregated appearance rating of all beers at a brewery
`brewery_review_palate_mean` : aggregated palate rating of all beers at a brewery
`brewery_review_taste_mean` : aggregated taste rating of all beers at a brewery

```
brewery_beer_abv_mean : aggregated abv of all beers at a brewery
beer_category_review_time_mean : useless aggregate
beer_category_review_overall_mean : aggregated overall rating of all beers in a given
beer category
beer_category_review_aroma_mean : aggregated aroma rating of all beers in a given beer
category
beer_category_review_appearance_mean : aggregated appearance rating of all beers in a
given beer category
beer_category_review_palate_mean : aggregated palate rating of all beers in a given
beer category
beer_category_review_taste_mean : aggregated taste rating of all beers in a given beer
category
beer_category_beer_abv_mean : aggregated abv of all beers in a given beer category
```

reviewer_info.csv

More aggregated info about the reviewers can be found in this dataset. There are more
reviewers in this dataset than there are in the sliced dataset. The data aggregates
over reviewers and their ratings for beer categories. The idea is a given reviewer may
prefer certain categories of beer more than others.

```
review_profilename : str reviewer username
beer_category : str the category of beer reviewed the given user
reviewer_number_of_reviews : int number of reviews for a given beer category by a
specific reviewer
reviewer_review_time_mean : useless unix timestamp
reviewer_review_overall_mean : mean aggregated overall rating of a beer category for a
specified reviewer
reviewer_review_aroma_mean : mean aggregated aroma rating of a beer category for a
specified reviewer
reviewer_review_appearance_mean : mean aggregated appearance rating of a beer category
for a specified reviewer
reviewer_review_palate_mean : mean aggregated palate rating of a beer category for a
specified reviewer
reviewer_review_taste_mean : mean aggregated taste rating of a beer category for a
specified reviewer
reviewer_beer_abv_mean : mean aggregated abv of a beer category for a specified
reviewer
reviewer_review_time_median :  reviewer_review_overall_median : median (50%tile)
aggregated overall rating of a beer category for a specified reviewer
reviewer_review_aroma_median : median (50%tile) aggregated aroma rating of a beer
category for a specified reviewer
reviewer_review_appearance_median : median (50%tile) aggregated appearance rating of a
beer category for a specified reviewer
reviewer_review_palate_median : median (50%tile) aggregated palate rating of a beer
category for a specified reviewer
reviewer_review_taste_median : median (50%tile) aggregated taste rating of a beer
category for a specified reviewer
reviewer_beer_abv_median : median (50%tile) aggregated abv of a beer category for a
specified reviewer
reviewer_review_time_sd :  reviewer_review_overall_sd : standard deviation aggregated
overall rating of a beer category for a specified reviewer
reviewer_review_aroma_sd : standard deviation aggregated aroma rating of a beer
```

category for a specified reviewer
 `reviewer_review_appearance_sd` : standard deviation aggregated appearance rating of a beer category for a specified reviewer
 `reviewer_review_palate_sd` : standard deviation aggregated palate rating of a beer category for a specified reviewer
 `reviewer_review_taste_sd` : standard deviation aggregated taste rating of a beer category for a specified reviewer
 `reviewer_beer_abv_sd` : standard deviation aggregated abv of a beer category for a specified reviewer
 `reviewer_review_time_05p` : `reviewer_review_overall_05p` : 5%tile aggregated overall rating of a beer category for a specified reviewer
 `reviewer_review_aroma_05p` : 5%tile aggregated aroma rating of a beer category for a specified reviewer
 `reviewer_review_appearance_05p` : 5%tile aggregated appearance rating of a beer category for a specified reviewer
 `reviewer_review_palate_05p` : 5%tile aggregated palate rating of a beer category for a specified reviewer
 `reviewer_review_taste_05p` : 5%tile aggregated taste rating of a beer category for a specified reviewer
 `reviewer_beer_abv_05p` : 5%tile aggregated abv of a beer category for a specified reviewer
 `reviewer_review_time_25p` : `reviewer_review_overall_25p` : 25%tile aggregated overall rating of a beer category for a specified reviewer
 `reviewer_review_aroma_25p` : 25%tile aggregated aroma rating of a beer category for a specified reviewer
 `reviewer_review_appearance_25p` : 25%tile aggregated appearance rating of a beer category for a specified reviewer
 `reviewer_review_palate_25p` : 25%tile aggregated palate rating of a beer category for a specified reviewer
 `reviewer_review_taste_25p` : 25%tile aggregated taste rating of a beer category for a specified reviewer
 `reviewer_beer_abv_25p` : 25%tile aggregated abv of a beer category for a specified reviewer
 `reviewer_review_time_75p` : `reviewer_review_overall_75p` : 75%tile aggregated overall rating of a beer category for a specified reviewer
 `reviewer_review_aroma_75p` : 75%tile aggregated aroma rating of a beer category for a specified reviewer
 `reviewer_review_appearance_75p` : 75%tile aggregated appearance rating of a beer category for a specified reviewer
 `reviewer_review_palate_75p` : 75%tile aggregated palate rating of a beer category for a specified reviewer
 `reviewer_review_taste_75p` : 75%tile aggregated taste rating of a beer category for a specified reviewer
 `reviewer_beer_abv_75p` : 75%tile aggregated abv of a beer category for a specified reviewer
 `reviewer_review_time_95p` : `reviewer_review_overall_95p` : 95%tile aggregated overall rating of a beer category for a specified reviewer
 `reviewer_review_aroma_95p` : 95%tile aggregated aroma rating of a beer category for a specified reviewer
 `reviewer_review_appearance_95p` : 95%tile aggregated appearance rating of a beer category for a specified reviewer
 `reviewer_review_palate_95p` : 95%tile aggregated palate rating of a beer category for a

specified reviewer
`reviewer_review_taste_95p` : 95%tile aggregated taste rating of a beer category for a specified reviewer
`reviewer_beer_abv_95p` : 95%tile aggregated abv of a beer category for a specified reviewer
`reviewer_review_time_min` : `reviewer_review_overall_min` : minimum aggregated overall rating of a beer category for a specified reviewer
`reviewer_review_aroma_min` : minimum aggregated aroma rating of a beer category for a specified reviewer
`reviewer_review_appearance_min` : minimum aggregated appearance rating of a beer category for a specified reviewer
`reviewer_review_palate_min` : minimum aggregated palate rating of a beer category for a specified reviewer
`reviewer_review_taste_min` : minimum aggregated taste rating of a beer category for a specified reviewer
`reviewer_beer_abv_min` : minimum aggregated abv of a beer category for a specified reviewer
`reviewer_review_time_max` : `reviewer_review_overall_max` : maximum aggregated overall rating of a beer category for a specified reviewer
`reviewer_review_aroma_max` : maximum aggregated aroma rating of a beer category for a specified reviewer
`reviewer_review_appearance_max` : maximum aggregated appearance rating of a beer category for a specified reviewer
`reviewer_review_palate_max` : maximum aggregated palate rating of a beer category for a specified reviewer
`reviewer_review_taste_max` : maximum aggregated taste rating of a beer category for a specified reviewer
`reviewer_beer_abv_max` : maximum aggregated abv of a beer category for a specified reviewer

`brewery_and_beer_info.csv`

More aggregated info on beers from a brewery in this dataset. Has more beers and breweries than the sliced dataset -- does include the target brewery! The idea is that a specific brewery may craft certain beer categories well or not well.

`brewery_id` : int unique brewery ID
`beer_category` : str broad beer category
`brewery_beer_category_number_of_reviews` : int number of reviews for a given beer category at a specific brewery
`brewery_beer_category_review_time_mean` : useless unix timestamp
`brewery_beer_category_review_overall_mean` : mean aggregated overall rating of a beer category for a specified brewery
`brewery_beer_category_review_aroma_mean` : mean aggregated aroma rating of a beer category for a specified brewery
`brewery_beer_category_review_appearance_mean` : mean aggregated appearance rating of a beer category for a specified brewery
`brewery_beer_category_review_palate_mean` : mean aggregated palate rating of a beer category for a specified brewery
`brewery_beer_category_review_taste_mean` : mean aggregated taste rating of a beer category for a specified brewery
`brewery_beer_category_beer_abv_mean` : mean aggregated abv of a beer category for a specified brewery

brewery_beer_category_review_time_median :
brewery_beer_category_review_overall_median : median aggregated overall rating of a
beer category for a specified brewery
brewery_beer_category_review_aroma_median : median aggregated aroma rating of a beer
category for a specified brewery
brewery_beer_category_review_appearance_median : median aggregated appearance rating of
a beer category for a specified brewery
brewery_beer_category_review_palate_median : median aggregated palate rating of a beer
category for a specified brewery
brewery_beer_category_review_taste_median : median aggregated taste rating of a beer
category for a specified brewery
brewery_beer_category_beer_abv_median : median aggregated abv of a beer category for a
specified brewery
brewery_beer_category_review_time_sd : brewery_beer_category_review_overall_sd :
standard deviation aggregated overall rating of a beer category for a specified
brewery
brewery_beer_category_review_aroma_sd : standard deviation aggregated aroma rating of
a beer category for a specified brewery
brewery_beer_category_review_appearance_sd : standard deviation aggregated appearance
rating of a beer category for a specified brewery
brewery_beer_category_review_palate_sd : standard deviation aggregated palate rating
of a beer category for a specified brewery
brewery_beer_category_review_taste_sd : standard deviation aggregated taste rating of
a beer category for a specified brewery
brewery_beer_category_beer_abv_sd : standard deviation aggregated abv of a beer
category for a specified brewery
brewery_beer_category_review_time_05p : brewery_beer_category_review_overall_05p :
5%tile aggregated overall rating of a beer category for a specified brewery
brewery_beer_category_review_aroma_05p : 5%tile aggregated aroma rating of a beer
category for a specified brewery
brewery_beer_category_review_appearance_05p : 5%tile aggregated appearance rating of a
beer category for a specified brewery
brewery_beer_category_review_palate_05p : 5%tile aggregated palate rating of a beer
category for a specified brewery
brewery_beer_category_review_taste_05p : 5%tile aggregated taste rating of a beer
category for a specified brewery
brewery_beer_category_beer_abv_05p : 5%tile aggregated abv of a beer category for a
specified brewery
brewery_beer_category_review_time_25p : brewery_beer_category_review_overall_25p :
25%tile aggregated overall rating of a beer category for a specified brewery
brewery_beer_category_review_aroma_25p : 25%tile aggregated aroma rating of a beer
category for a specified brewery
brewery_beer_category_review_appearance_25p : 25%tile aggregated appearance rating of
a beer category for a specified brewery
brewery_beer_category_review_palate_25p : 25%tile aggregated palate rating of a beer
category for a specified brewery
brewery_beer_category_review_taste_25p : 25%tile aggregated taste rating of a beer
category for a specified brewery
brewery_beer_category_beer_abv_25p : 25%tile aggregated abv of a beer category for a
specified brewery
brewery_beer_category_review_time_75p : brewery_beer_category_review_overall_75p :
75%tile aggregated overall rating of a beer category for a specified brewery

brewery_beer_category_review_aroma_75p : 75%tile aggregated aroma rating of a beer category for a specified brewery

brewery_beer_category_review_appearance_75p : 75%tile aggregated appearance rating of a beer category for a specified brewery

brewery_beer_category_review_palate_75p : 75%tile aggregated palate rating of a beer category for a specified brewery

brewery_beer_category_review_taste_75p : 75%tile aggregated taste rating of a beer category for a specified brewery

brewery_beer_category_beer_abv_75p : 75%tile aggregated abv of a beer category for a specified brewery

brewery_beer_category_review_time_95p : brewery_beer_category_review_overall_95p : 95%tile aggregated overall rating of a beer category for a specified brewery

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brewery_beer_category_review_appearance_95p : 95%tile aggregated appearance rating of a beer category for a specified brewery

brewery_beer_category_review_palate_95p : 95%tile aggregated palate rating of a beer category for a specified brewery

brewery_beer_category_review_taste_95p : 95%tile aggregated taste rating of a beer category for a specified brewery

brewery_beer_category_beer_abv_95p : 95%tile aggregated abv of a beer category for a specified brewery

brewery_beer_category_review_time_min : brewery_beer_category_review_overall_min : minimum aggregated overall rating of a beer category for a specified brewery

brewery_beer_category_review_aroma_min : minimum aggregated aroma rating of a beer category for a specified brewery

brewery_beer_category_review_appearance_min : minimum aggregated appearance rating of a beer category for a specified brewery

brewery_beer_category_review_palate_min : minimum aggregated palate rating of a beer category for a specified brewery

brewery_beer_category_review_taste_min : minimum aggregated taste rating of a beer category for a specified brewery

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brewery_beer_category_review_time_max : brewery_beer_category_review_overall_max : maximum aggregated overall rating of a beer category for a specified brewery

brewery_beer_category_review_aroma_max : maximum aggregated aroma rating of a beer category for a specified brewery

brewery_beer_category_review_appearance_max : maximum aggregated appearance rating of a beer category for a specified brewery

brewery_beer_category_review_palate_max : maximum aggregated palate rating of a beer category for a specified brewery

brewery_beer_category_review_taste_max : maximum aggregated taste rating of a beer category for a specified brewery

brewery_beer_category_beer_abv_max : maximum aggregated abv of a beer category for a specified brewery