

PS11 Yuhas

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1 Introduction

- Type of craft beer predicted by ABV of Beer
- Potentially increase accuracy by sub-setting by brewery.

2 Literature Review

- Craft beer rising share of beverages markets
- Craft beer associated with niche knowledge
- Breweries recently creating stronger beers

3 Data

- obtained from Kaggle at:”<https://www.kaggle.com/nickhould/craft-cans/data>”
- 64 of 2411 have no ABV(Alcohol By Volume) values and are dropped.
- since some breweries are missing ABV values for all drinks, subsetting by brewery is not currently an option.
- Potential future fix is to manually find ABV values for each of the 64 beers.

4 Methods

- k Nearest Neighbors(kNN): Six fold Cross Validation with 15 random guess tuning
- Support Vector Machine(SVM): Six fold Cross Validation with 15 random guess tuning
- I expect SVM to provide a better model due to the numerous types of beer and possible ABV values.

5 Findings

- I expect the model to have moderate accuracy at best due to the smaller range of ABV values to beer types.

6 Conclusion

- In conclusion, I believe that ABV may be easier to predict based on type of beer which is a reversal of this project; however, the possibilities provided by this analysis may be valuable in public education of craft brewing.

References

Press, AP. ??? “Growth of New York state craft alcohol industry continues.” .

Unkown. ??? “Beer Styles-Alcohol by Volume Bar Graph.” URL
<https://www.brewersfriend.com/2009/01/04/beer-styles-alcohol-by-volume-bar-graph/>.