



College Application Recommender

“Best College Decisions For Everyone!”

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Motivation

- Using Data Science to democratize college application advice for high school students and parents based on their preference (e.g. school location, size) and background (e.g SAT scores).
- [Demo!](#)

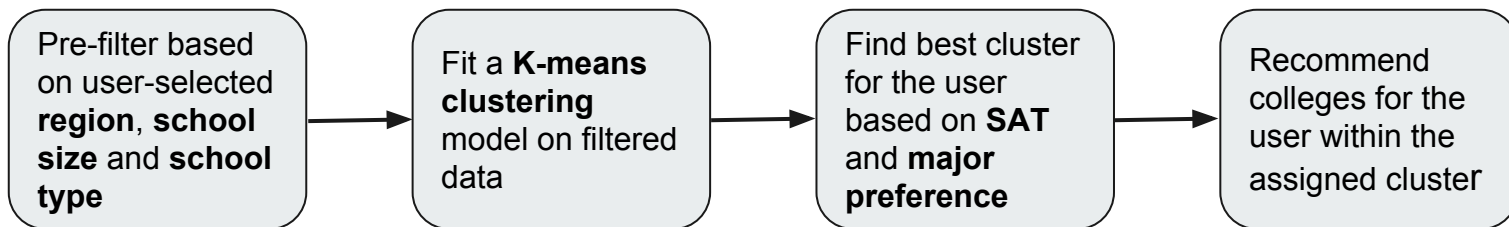


Data Used

- U.S. Department of Education: College Scorecard (2013)
- 7804 observations (colleges) and 1729 features in raw data
- 6737 colleges and 18 features in cleaned data:
 - Admission rate
 - SAT scores
 - Proportion of majors



Model & Success Criteria



- The **success** is defined by:
 - Very reasonable recommendations based on your background
 - K-means clustering model on average has a R^2 of 76.6%

Insights

- **Feature weights** matter a lot for our K-means model!
- Do an experiment with full SAT scores and Arts & Humanities as most preferred major.
 - Currently **SAT scores** carry majority of weights.
 - What if **major preference** carry a lot of weights instead?

Name	California Institute of Technology	University of Illinois at Urbana-Champaign	Massachusetts Institute of Technology	Franklin W Olin College of Engineering	University of Chicago
City	Pasadena	Champaign	Cambridge	Needham	Chicago
State	CA	IL	MA	MA	IL
Admission rate	10.55%	62.39%	8.15%	16.85%	8.81%
Median SAT Verbal	760	615	725	725	760
Median SAT Math	785	740	775	764	755
Number of undergraduates	977	31663	4510	343	5697
Proportion of majors					
Arts and Humanities	0.00%	6.35%	0.20%	0.00%	16.52%

Name	John Paul the Great Catholic University	The New School	Cairn University-Langhorne	Savannah College of Art and Design	Rhode Island School of Design
City	Escondido	New York	Langhorne	Savannah	Providence
State	CA	NY	PA	GA	RI
Admission rate	88.15%	66.59%	51.31%	65.47%	27.31%
Median SAT Verbal	550	570	516	540	600
Median SAT Math	500	558	490	520	635
Number of undergraduates	140	6581	840	8750	2005
Proportion of majors					
Arts and Humanities	64.52%	70.55%	72.64%	73.43%	77.13%

Thank you!

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