Course Re-evaluations

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Our Goal

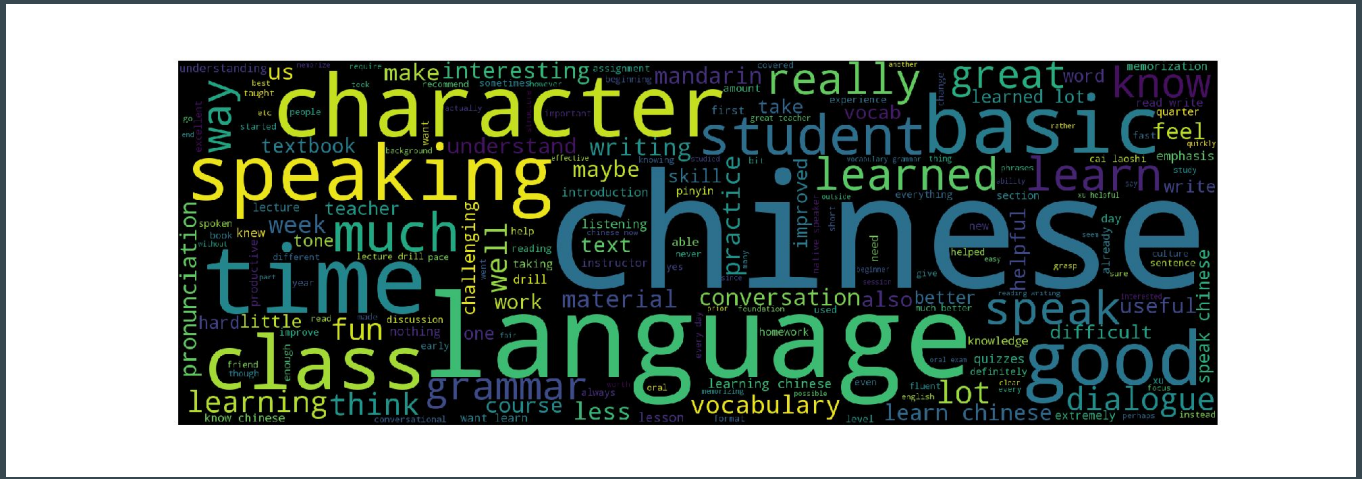
- The current version of evaluations.uchicago.edu is cumbersome to navigate.
- It is difficult to view multiple evaluations at the same time or to compare and contrast reviews.
- Our solution: build a website where students can quickly and easily find an overview for a given course or professor. They can view aggregated data from many different evaluations to quickly compare courses, professors, and departments.

Work Process

1. Scraped data from evaluations.uchicago.edu using Selenium
2. Cleaned the scraped data, aggregated numerical scores, used sentiment analysis on written scores, used dyadic partitioning to assess whether students would recommend the course/professor, and built a SQL database to hold all the data
3. Build a website that allows users to search by course, professor, or both, or view department rankings
4. Aggregated evaluations across courses, professors, and departments depending on the user's search inputs
5. Built word clouds, charts, and tables that display the information a user searched for

Word Clouds

- Good way to aggregate and visualize all written evaluations for a course/professor/course & professor combo
- Used NLTK stopwords along with custom stopwords to strip redundant words and punctuation
- Pre-processed text before putting it into the SQL db to make word cloud creation faster



Charts

- Learned how to use matplotlib (object oriented graphing)
- Built functions to aggregate the data differently for each of three search cases: search by course, search by professor, and search by course taught by a specific professor
- Built functions to take that data and turn it into a graph without just the user search terms as input

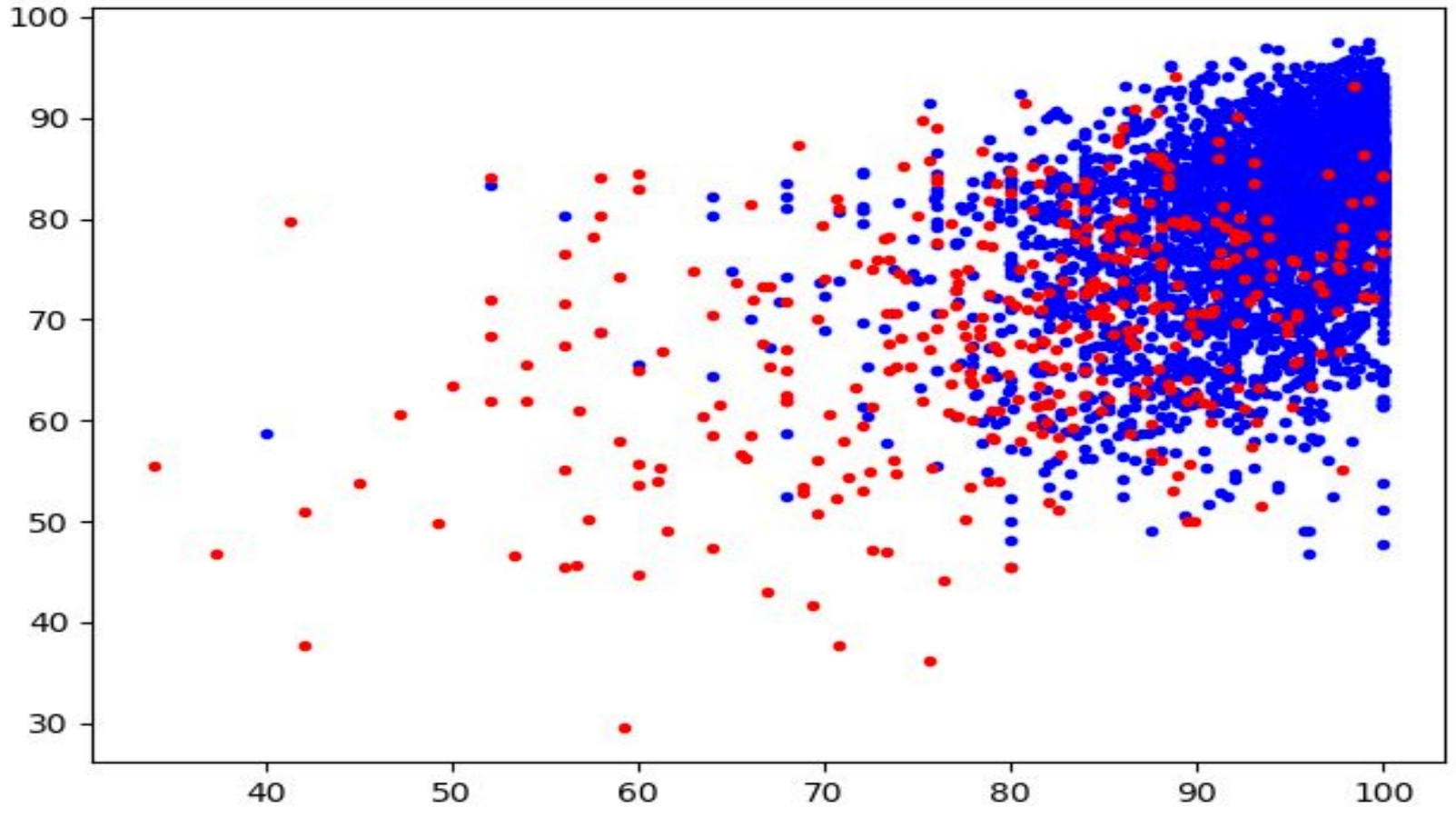
Sentiment Analysis/Numerical Score Analysis

- Used “VADER” sentiment analysis package from NLTK to assess the positivity of written comments on course/instructor
- Aggregated sentiment scores along with numerical scores

	1	2	3	4	5
Rate instructor's ability to convey the subtleties of the language	0%	0%	0%	0%	**100%**
Rate instructor's ability to encourage class converation in this language	0%	0%	0%	0%	**100%**
Rate instructor's availability outside of class and willingness to help	0%	0%	0%	0%	**100%**
Rate feedback on assignments and exams	0%	0%	0%	0%	**100%**

Dyadic Partitioning

- About 20% of evaluations have the questions:
  - Was this instructor good overall?
  - Would you recommend this course?
- Want to extrapolate this data using Dyadic Partitioning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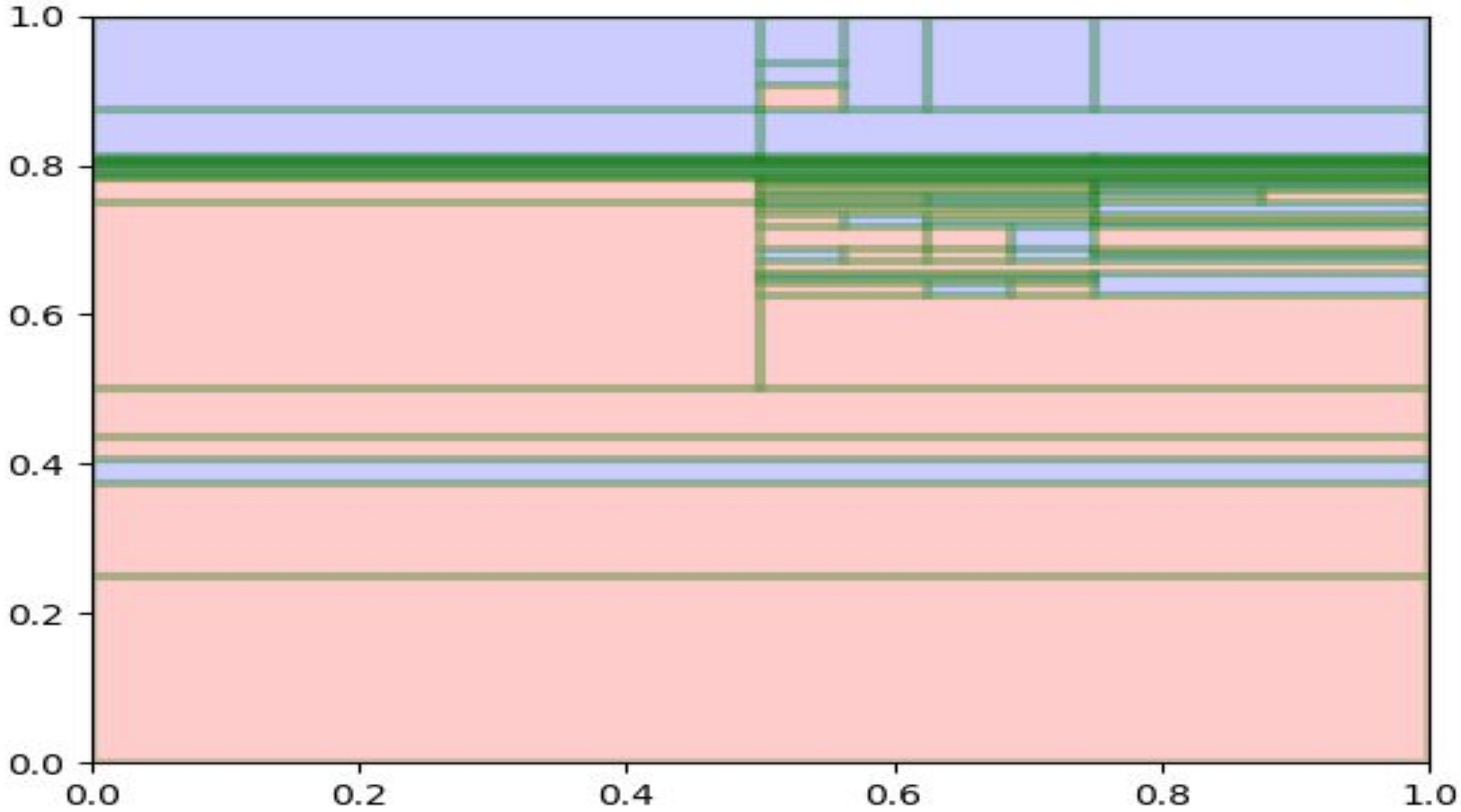
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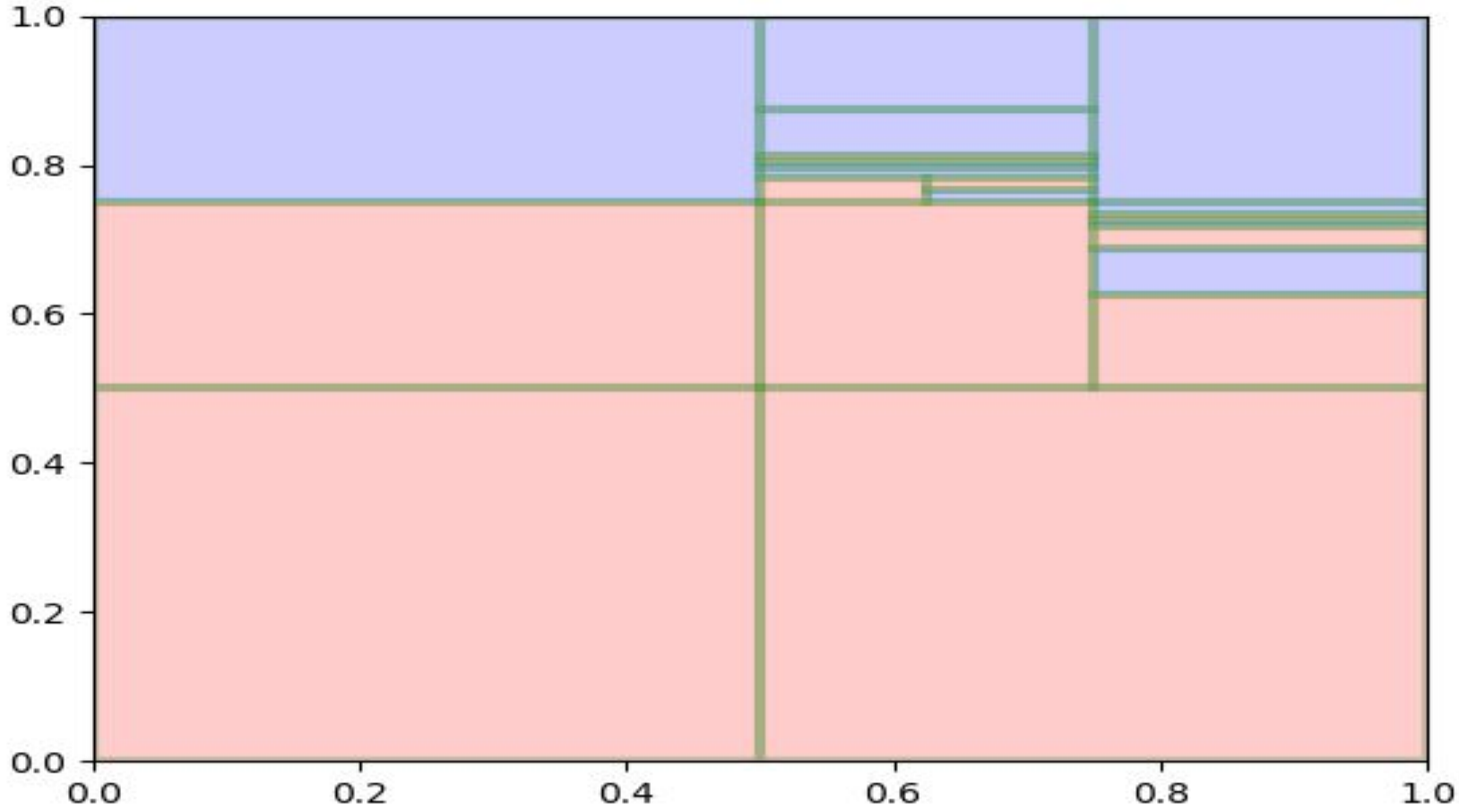
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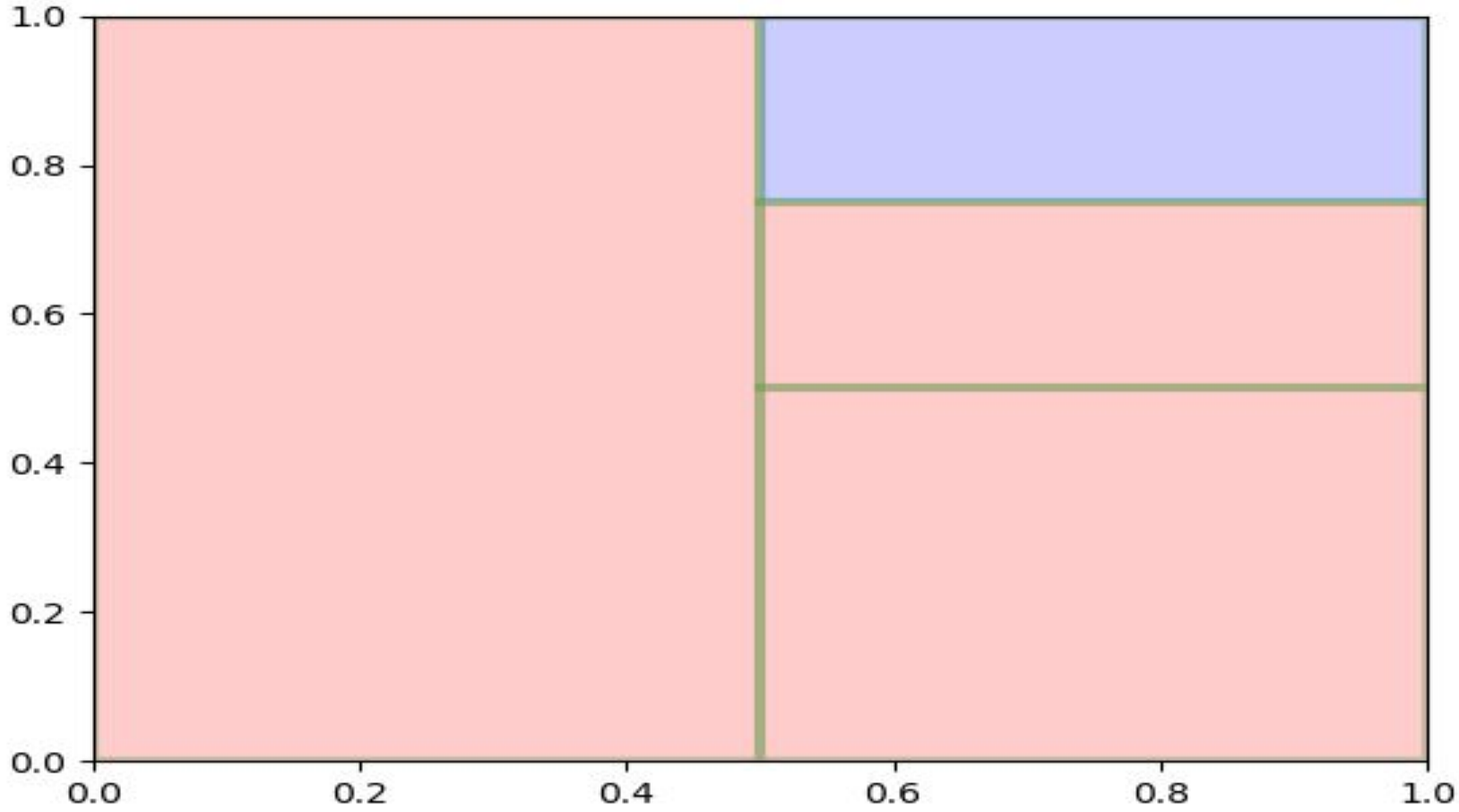
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Demo time!

Questions?