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AML Project Proposal

Speed-Dating Match Compatibility

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1 Dataset

This dataset is sourced from Columbia Business School. It was gathered from participants in experimental speed-dating events from 2002-2004. During the events, the attendees would have a four-minute "first date" with every other participant of the opposite sex.

At the end of their four minutes, participants were asked if they would like to see their date again. They were also asked to rate their date on six attributes: Attractiveness, Sincerity, Intelligence, Fun, Ambition, and Shared Interests. The dataset also includes questionnaire data gathered from participants at different stages. These fields include demographics, dating habits, self-perception across key attributes, beliefs on what others find valuable in a mate, and lifestyle information. More detailed dataset characteristics include:

- 8378 unique observations
- 121 total features
 - numeric:** 59 features
 - categorical:** 62 features
- 2 target classes
- 18372 total missing values
 - affected:** 7330 observations

2 Objective

Our aim is to apply the relevant techniques learned in class to perform binary classification of our target class (whether or not the two people who had a date were a match).

We chose this dataset because it is well-documented, comes from a high-quality source, and contains a myriad of fields that allow flexibility at the time of selecting a predictive approach. We are also excited to scientifically determine which of these fields is the most important when it comes to ensuring a romantic match between two strangers, as well as the differences between which are more important for women and for men.

3 Relevant Papers

Raymond Fisman; Sheena S. Iyengar; Emir Kamenica; Itamar Simonson.
Gender Differences in Mate Selection: Evidence From a Speed Dating Experiment.
The Quarterly Journal of Economics, Volume 121, Issue 2, 1 May 2006, Pages 673–697,
<https://doi.org/10.1162/qjec.2006.121.2.673>