

Booth Data Mining: Final Project

Two *related* data mining tasks:

Understanding and interpretation in high-dimensions

- ▶ Tell us a story that builds stylized facts about the data.
- ▶ Tools: data visualization, causal inference, factor models, clustering, network graphs...

Build and evaluate a prediction model.

- ▶ Raw prediction: build and evaluate a forecasting machine.
- ▶ Tools: Linear/logistic Lasso regression, causal inference, PCR, trees...

Describe analysis goals and use them as motivation.

You should **bring your own data**

Supply your own dataset and develop analysis goals.

- ▶ Data must be rich enough for both explore/predict tasks.
- ▶ You should be able to use many tools from class (not all).
- ▶ Make sure the data and your goals are compatible.

Your project score will have a **data multiplier** corresponding to level of data-difficulty (from cleaning to conceptualization).

Think of the midterm data as the baseline of one.
(i.e., you don't want anything much more simple).

See piazza for a starter list of data sources.

Group and individual projects

- ▶ As always, you can work in a **group** of up to 4,
- ▶ Everybody in the group receives the same project score.
- ▶ If you are 1 or 2, I don't expect the work of 4 people.

Presentation and format

- ▶ Make your analysis and conclusions clear and concise.
- ▶ Include enough R output/code to show what you've done.

You should communicate with me early to check your problem and analysis goals if you are uncertain.

The project is due by Monday June 9th.

Early submissions are absolutely welcome.

Submit a pdf on chalk.

Keep your code handy in case we want to see it (or even better, put it on a shared drive and provide the link).