

**MSAN 630**  
**Advanced Machine Learning**  
**Final Class Project – Proposal**  
**Due 2/18, Midnight**

**Project title: <fill in>**

**Background and motivation**

Discuss your motivations and reasons for choosing this project, especially any background or research interests that may have influenced your decision

**Project Objectives**

What machine learning task or problem are you planning to address? What would you like to learn and accomplish? List the possible benefits of the project. This is not the same as which models you are going to apply, but more the ultimate application area. For example “We wish to re-enact the Netflix competition. In this problem, teams predicted moving ratings...”

**What data?**

What data are you planning to use, and from where and how are you collecting it? If it’s not already available in the format needed, how will you ensure you have adequate training data to model something interesting?

**Techniques Overview**

What machine learning method(s) will you apply? Will you develop your own algorithms, extend an existing package, or use purely “out of the box” models? Will you use Python, R, or a combination?

**Must-have project outcomes**

These are models, calculations, etc. you want to finish, without which you would consider your project to be a failure.

**Optional outcomes**

These are models, calculations, etc. you want to finish, as a stretch goal or “nice to have”.

**Evaluation**

How will you verify your projects results and estimate whether you have solved the problem you have set out to address?

**Schedule, timeline, and team responsibilities**

There are milestones already described in the project description, but how will you avoid a big rush before each deadline? How will you delegate different modules and/or responsibilities among your team members? Write this in terms of weekly deadlines.

**Rubric: I will subtract an appropriate percentage of points for each above listed section left incomplete.**

I will review your proposal and provide one of 3 responses: (1) approved without any changes, (2) approved with minor suggestions for changes, (3) major revision required. Typically most (if not all) proposals are in categories (1) or (2). I will respond within 48 hours of submission.

Note that your project plan will very likely change during the module as you learn more about the data - this is fine as long as your overall goal (the task you are addressing, the data set you are using) remains generally the same - so no need to let me know about such changes. However, if during the module your project changes in a major way from what you proposed, you need to let me know (email is fine, but we will also meet one time in person).