

## Machine Learning-I (CS/DS 706)

### *Project*

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This document is about the project that you need to submit as part of the Machine Learning course during the Aug–Nov 2017 term. This is expected to be a group project — in groups of three or less — working on some realistic problem that requires you to use one or more of the methods/techniques that would be discussed as part of the Machine Learning course. A few rules of the game:

- Each team works on a different topic.
- All documents by default must be typeset in L<sup>A</sup>T<sub>E</sub>X.
- The events and dates mentioned below during the course of the project must be strictly adhered to. Some of these dates might change depending on the Institute calendar but the dates would hold  $\pm$  one week.
- Each group is expected to make a presentation of its findings, the schedule for these presentations will be announced later. The quality of these presentations will be an important part of the evaluation for this course.

<i>Milestone</i>	<i>Deadline</i>	<i>Deliverables</i>
<b>Project Selection</b>	August 21	Project Title and Groups
<b>Overall Plan</b>	August 31	<i>Plan Document:</i> One-pager with all the project milestones laid out
<b>Key Strategy / High-Level Algorithms</b>	September 15	<i>Strategy / Architecture Document:</i> Short document with a clear problem statement, the key algorithmic strategies you plan to employ, key insights of the data available, references to related literature, evaluation metrics to be used and justification for their choice, data sources, etc.
<b>Detailed Review</b>	November 15	<i>Demo and/or partial results:</i> A working (may be partial) prototype, POC
<b>Final Submission</b>	TBD	Final Report and Implementation Sources

**Please start working on the projects early.** All the projects are expected to result in a working implementation. Feel free to make use of open source libraries out there as appropriate — it is not expected that you build everything from the scratch. I would prefer that you go through some of the literature and figure out for yourselves the appropriate assembly of techniques you need to use. Discuss with me if you want suggestions, but after you have done your homework.