

Machine Learning

Term Project

General

- To enable the students to get hands-on experience in the design, implementation and evaluation of machine learning systems.
- Teams: One students each
- Solve a practical machine learning problem of your choice.
- Use Python.
- Good projects involve using alternative approaches and evaluating their performance in solving the problem.

General

- Article: **Project-Based Learning for Data Scientists**: Becoming a Data Scientist just became a whole lot easier
- Author: Kishen Sharma
- Link: <https://towardsdatascience.com/project-based-learning-for-data-scientists-df6a8f74e4a1>

General

- **Marks:** **30%**
 - Report 15%
 - Presentation 15%
- **Timing:**
 - Tue 7 Apr, 2020 Submit proposal
 - Tue 5 May, 2020 Submit report & present project

Project Proposal

- One to two-page proposal
- Specify problem
- Specify sample size and source
- Structure
 - Title
 - Student name
 - Problem definition
 - Data description
 - Samples

Research Report

- Four to 8-page report
- Use IEEE A4 conference template at http://www.ieee.org/conferences_events/conferences/publishing/templates.html
- In the introduction, include
 - Motivation
 - Problem definition
 - Literature review
- Describe your data and development environment.
- Describe any preprocessing, feature extraction and selection, techniques used, and post-processing.
- Give results and comments
- Give conclusions (work done, main results, future work)
- Include your source code in an appendix after the list of references.

Research Presentation

- Prepare Power Point slides
- Ten minutes long
- Must be clear and useful presentation, must add knowledge to fellow colleagues