CS 760: Machine Learning Fall 2020

PROJECT DESCRIPTION

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GO GREEN. AVOID PRINTING, OR PRINT 2-SIDED OR MULTIPAGE.

1 Description

In this project you will find a dataset related to:

- COVID-19,
- Implicit Bias,
- Wildfires and Climate Change,
- Other **contemporary** problem (requires prior approval by instructor).

You will pose a machine learning task/question of your choice, and use and compare *at least* two methods from this class to study such task/question.

For example, one could try to predict the effect that the immigration policies of the Trump administration will have on the student pool of UW-Madison using logistic regression, decision trees, and neural networks.

**Alternatively, in your project you may aim to answer a fundamental question in Machine Learning (requires prior approval by instructor).*

2 Evaluation

You will be evaluated on:

1. (25%) Novelty.
2. (25%) Clarity at presenting your ideas, methodology, data, results, etc.
3. (25%) Correctness.
4. (25%) Reproducibility.

3 Sections

I suggest your project includes the following sections:

- **Abstract.** Summary of the entire project.
- **Introduction.** Describe main ideas and goals.
- **Related/Similar work.**
- **Dataset.** Details about where you got it from, who is $\mathbf{x}$, who is y, what is N, what is D, etc.
- **Approach.** Details of your approach: preprocessing, method, algorithms, packages, etc.
- **Results.** Description of experiments, comparisons, and results (tables, plots, etc.)
- **Conclusions and Future Work.**
- **References.**

4 Deliverables

You need to hand in a zip file containing:

- All .tex source files and .pdf of a report, in the format of this project description, with no more than 8 pages long excluding references and appendix.
- Source code or reference to github repository with all the code required to replicate experiments and results.