1st Coding Assignment

CSE – 437

Problem Definition

MNIST ("Modified National Institute of Standards and Technology") is the de facto “hello world” dataset of computer vision. Since its release in 1999, this classic dataset of handwritten images has served as the basis for bench-marking classification algorithms. As new machine learning techniques emerge, MNIST remains a reliable resource for researchers and learners alike.

In this competition, your goal is to correctly identify digits from a dataset of tens of thousands of handwritten images. Kaggle have curated a set of tutorial-style kernels which cover everything from regression to neural networks. We encourage you to experiment with different algorithms to learn first hand what works well and how techniques compare.

Problem Description

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Team Formation

Team can be form up within 2 to 4 students. Each team should participate into the competition using one Kaggle account. Mixed-gender group is not allowed.

Project Milestone

Your project milestone report should be between 1 - 2 pages. The following is a suggested structure for your report:

- Name of the Team (Kaggle Account)
- Contestants Name
- Student ID, Email Address
- Problem statement: Describe your problem precisely specifying the dataset to be used
- Technical Approach: Describe the methods you intend to apply to solve the given problem
- Expected Submission: times, approach, result
- Contribution: Describe the role of each participant

Submission: Please submit your milestone as a PDF on Dropbox. Only one person on your team should submit.

Honor Code

You may consult any papers, books, online references, or publicly available implementations for ideas and code that you may want to incorporate into your strategy or algorithm, so long as you clearly cite your sources in your code and your write-up. However, under no circumstances may you look at another group’s code or incorporate their code into your project.

Notes:

1. You have to identify one submission for final judge
2. Each group should present their result into the class after the competition.
3. Project is graded based on total number submission, algorithm used, and results achieved.