

## Assignment # 3

**Due Date: Tuesday, May 24, 2022**

### **Submission:**

**This is an individual assignment and you need to submit the solution in a single Jupyter notebook over Google Class Room (submission link will be created).**

## **Object Recognition in Images with CIFAR-10**

The goal of this assignment is to let you explore and understand Machine Learning (ML) algorithms for image classification in the CIFAR-10 dataset.

CIFAR-10 dataset: <https://www.cs.toronto.edu/~kriz/cifar.html>

CIFAR-10 Leaderboard:

[http://rodrigob.github.io/are\\_we\\_there\\_yet/build/classification\\_datasets\\_results.html#43494641522d3130](http://rodrigob.github.io/are_we_there_yet/build/classification_datasets_results.html#43494641522d3130)

You're required to come up with **at least 2 different ML algorithms** (e.g., Logistic Regression, Naïve Bayes, SVM, Convolutional Neural Networks, etc.) along with a comparative analysis (e.g., accuracy, efficiency, simplicity, etc.).

Note: variants of any ML algorithm (e.g., Neural Networks, Convolutional Neural Networks, etc.) will be considered as only one model.

You would be asked to present your work as well.