

Homework 5

Due: 2020-11-22

Introduction

In this assignment you will understand the architecture of **Convolutional Neural Networks** and get practice with training these models on data.

- you will be given one task: Building a Convolutional Neural Network Model and Application.

• Setup

- **Start IPython**

you should start the IPython notebook from the `homework_5` directory, with the `jupyter notebook` command.

• Experiments

There are `### START CODE HERE / ### END CODE HERE` tags denoting the start and end of code sections you should fill out. Take care to not delete or modify these tags, or your assignment may not be properly graded.

- **Q1: Convolutional model -Step by Step (50 points)**

The IPython Notebook Convolutional model -Step by Step.ipynb will walk you through implementing the CNN step by step.

- **Q2: Convolutional model - Application (50 points)**

The IPython Notebook Convolutional model - Application.ipynb will walk you through implementing the CNN application.

- **See the code file for details.**

• Submission

You need to accomplish the following files:

- 1) **Convolutional Neural Networks**

- Convolutional model -Step by Step.ipynb
- Convolutional model - Application.ipynb

- 2) **Report**

- Please convert your experiment report to PDF format.
- You just need to upload all your code and report and do not upload datasets.