Exam CNN & RNN

Deep Learning Basics

Build and **train two neural networks**, on two of the provided datasets using the Tensorflow-Keras framework:

- One RNN on either
  - The Trip Advisor dataset
  - The Global temperature dataset
- One CNN on either
  - The Corals dataset
  - The Brain Tumor dataset

For the both networks, you should:

- **Create a test and validation set**
- **Preprocess the data**: *While preprocessing is not the subject of this exam, wrong/poor preprocessing steps will be sanctioned.*
- **Explain all of your choices with comments**: *Why did you choose this preprocessing ? this architecture ? this hyperparameter ?*
- **Compare different architectures**: *Layer hyperparameters (activation function, initialization method, units), regularization methods (dropout, batch normalization, l1 l2 regularization, early stopping …), training hyperparameters (learning rate, batch size, optimizers …) …*
- **Train the model and evaluate its performances on the test set:** *The results should be shown in the Notebook.*

Your project should be returned as a Notebook. No ZIP file.

(Bonus Point) Save your model.