Corsound Interview Practical Test

DL/ML Algorithm Developer

March 2023

General guidelines

All code must be written in Python. You can use any library available in PIP or Anaconda repositories.

The code must run without an issue on any machine with standard GPU.
You should provide a git repository with a docker file and instructions on how to deploy the code so we can run it and see it in action.

The assignment objective

The goal is to fit a classifier to distinguish real speech from fake. A solution is expected to be a DL model that having an audio input (waveform) outputs a score with associated threshold to classify real/fake speech. As a target metric we suggest using EER (equal error rate).

As a dataset we suggest to use ASVspoof 2019 set:
https://datashare.ed.ac.uk/handle/10283/3336

You are not limited to any framework or technology to use but PyTorch is preferred.
It is allowed to use any pre-trained models e.g. from HuggingFace, SpeechBrain etc.
As a solution it is expected to get a code for model definition and training + presentation in a free form e.g. as a Jupyter notebook with obtained results.

Providing a repository with a docker file and instructions on how to deploy the code so we can run it and see it in action is a huge advantage.

Good luck

Corsound Team