Neural Wave Hackathon 2024

This hackathon focuses on real-world challenges offering a significantly greater benefit to both students and companies. Solving authentic problems allows participants to gain practical experience and relevant skills, making their contributions more valuable and appealing to future employers. This may lead to potential hiring opportunities, as companies recognize the skills and potential of the students, opening pathways for internships, job offers, and long-term collaborations.

Guidelines for Project Submission

In order to be eligable for winning a prize you must fullfil all points outlined in this file. The submission deadline is at 11 a.m. on Sunday, 27th.

Step 1: Code Submission

You must upload you code (excluding model weights and data) to our Github organization that we will give you access to on Saturday. Further the studio within Lightning AI must be published containing the best model to `Hackathon Neural Wave`.

1. **Organize Your Code**:
    - Create a well-structured repository with clear folder naming (e.g., `data/`, `notebooks/`).
    - Include a `README.md` with an overview, instructions for running the code, and dependencies. It must be clearely explained how the code can be run and how the data directory can be changed. We will run your models on a separate test dataset for which we will have to change the data directory. You can assume that the folder structure within the test dataset directory will stay the same.
    - List dependencies in `requirements.txt`.
    - For [Duferco, AI4Privacy]: Please create a file `inference.py` that will run your best model and takes an argument `-s path/to/dataset` to specify the data directory. This script will be used to evaluate your model on a test dataset. You can assume that the folder structure within the dataset directory is consistent with the training dataset you have. The script should print key perfomance metrics that prove the performance of you model.
    - For [Bosch]: please save the final adjacency matrix to file. To do this, save the adjacency matrix of your current directed graph as `txt` file. A “1” indicates an edge from the respective node in the row to the respective node in the column. A “0” denotes the absence of such an edge. The columns need to be ordered in the same way as in the data set.
    - For [Swisscom]: In the last hours before the submission we will provide you with a `json` file that contains prompts and we ask you to prompt them to your model and fill the field `"prediction"` and save the file again. The filled file should be included in the Lightning AI studio and on Github. The structure will be the following:

```
[
   {
   "input": "Here is an example sentence",
   "language": "en",
   "id": "fc4ab7f4-0dd1-4982-a8k2-af12eb85f697",
   "prediction": ""
   },
   ...
]
```

Step 2: Report Creation

1. **Report Content**:

   Write a PDF report with max. 3 pages detailing the following points:
   - **Project Title**: Brief and descriptive.
   - **Objective**: The problem being addressed and its significance.
   - **Approach**: Methodology, algorithms, and frameworks used.
   - **Results**: Key findings, metrics, or visualizations.
   - **Challenges**: Difficulties encountered and solutions.
   - For [PastaHR]: we will provide you 2 or 3 different job descriptions about an hour before the deadline. You should create the screening questions using the AI recruiter and add the generated screening questions to the report. (They will not count towards the page limit.)
2. **Format and Publishing**:
   - Keep the report concise and well-formatted.
   - Include images, tables, or links as necessary.
   - Include the report in the studio and on Github.

Step 3: Video Explanation

1. **Record a Video**:
   - Create a short video max 3 minutes that summarizes:
     - A shyour solution .
     - Key results and their interpretation.
   - Use visuals like charts, diagrams, or code snippets for better understanding.
2. **Upload the Video**:
   - Include the video file in the project directory.

Step 4: If you are working on the `PastaHR` project

Additionally, you must screen record a demo of your entire solution. Start by entering the job description, quickly show the screening questions and do a sample interview. During the interview you have to at least once:

- answer with a counter or clarification question

- and give a completely random answer that is out of context and could mislead the agent (be an adversary).

Once the call has finished please show the recorded transcript and generated summary so it can be read by the judges. This video should not exceed 6 minutes.

Step 5: Final Submission and Publishing

1. **Check All Files**:
    - Ensure your code, report, and video are properly formatted and included.
    - Review for completeness and accuracy.
    - Ensure to give credit to any external sources used in your project. No plagiarism is allowed, make sure to cite any references included ChatGPT.
2. **Proper studio publishing and configuration**:
    - Only one submission per team, and decide as a group what is the best settings for the studio given the requirements of your solution.
    - Make sure when publishing the studio that the studio visibility is only limited to the organization Neuralwave Hackathon, and also if the project you are doing is under some NDA contract, we suggest you to remove any sensitive data before publishing.
    - While publishing the studio, you'll be given the option to choose a title and summary for your publication, the title must follow the following format `Company Name | Team Name`, and in the summary you must write all the member's full name, and possibly their role.

> *Publishing your studio to the `Lightning community`, publishing datasets to Github (or any other form of publishing), plagiarism or changing the MIT liscence will lead to a disqualification of the entire team. (The MIT Liscense is already contained in the template.) The liscense is required as part of our money comes from public resources which require us to publish the work.*

For any issues during submission, please contact the hackathon organizers and refer to the Lightning AI documentation.
Best of luck and have fun!