GDG Algiers

MachineLearning Track

DevFest 2020

Description

Machine learning track will contain four different level challenges that will test your knowledge, develop your skills and of course have fun hacking your way into the field:

- ❏ 1 Easy challenge : **50 points**
- ❏ 2 Medium challenges : **100 points per challenge**
- ❏ 1 Hard challenge : **200 points**

A bonus of points is given to one of the competitors based on the organizational and creativity aspects. Eventually, this track will have one winner based on the highest score in the 4 challenges (online safety challenge excluded since it's optional and it has its own prize)

The challenges of this track are :

First challenge: Noisy Data Cleaning

Difficulty level : Easy
Points awarded : 50

Description : having a training data full of errors, outliers, and noise , will only make it harder for our system to detect the underlying patterns, so our system is less likely to perform well. It is often well worth the effort to spend time cleaning up the training data, this challenge will test your ability to perform data cleaning on our noisy and highly skewed dataset.

You will find all the details you need in the corresponding folder of the track.

Second challenge: Exploratory Data Analysis (EDA)

Difficulty level : Medium
Points awarded : 100

Description : In this challenge you will go through the critical process of performing initial investigations on data so as to discover patterns, to spot anomalies, to test hypothesis and to check assumptions with the help of summary statistics and graphical representations.

You will find all the details you need in the corresponding folder of the track.

Third challenge: Fine tune machine learning model
Difficulty level : Medium
Points awarded : 100
Description : Fine tuning machine learning predictive model is a crucial step to improve accuracy of the forecasted results, in this challenge you will try to get the best accuracy possible for the given machine learning algorithm , and try to improve your model's accuracy, by applying different techniques and methodologies.

You will find all the details you need in the corresponding folder of the track.

Forth challenge: Model Comparison
Difficulty level : Hard
Points awarded : 200
Description : It is important to compare the performance of multiple different machine learning algorithms consistently. This challenge will test your ability to apply deep analyses, and different techniques on the given models to come with the best one for our data.

You will find all the details you need in the corresponding folder of the track.

Online Safety challenge: Hate Speech Detection(Only those who registered for the online safety challenge are eligible to submit their solution)

Bonus points
 As we appreciate the excellent and outstanding work, 50 bonus points will be given to one of the competitors in each challenge based on creativity and high quality solution.

What to submit?

You have to submit your solution before Saturday at 7am.
You have to submit the generated code (.html).

How to submit ?
You have to submit this given submission form.
Note : The submitted solution can be a link to either Github/Gitlab or Google Drive.