Open Program Planning

Opportunity to perform extra research on a problem related to ADS. This subject is outside of the Core Program but I would like to try out.

Gradient Descent

Due Date 10 Jan 2021

Subject Name: Gradient descent

Gradient Descent is an optimization algorithm for finding a local minimum of a differentiable function. Gradient descent is simply used to find the values of a function's parameters (coefficients) that minimize a cost function as far as possible.

Subject Goal:

This subject should focus on optimizing the result after we performed the predictive analysis algorithm. Every time we train a deep learning model, or any neural network for that matter, we're using gradient descent (with backpropagation). We use it to minimize a loss by updating the parameters/weights of the model. It should be interesting to achieve a result which is more reliable, trustful after we predict it.

The main goal of this open program is to discover deeply into this problem. In this way, I can apply it to any machine learning model which cannot be stop at predictive analysis.

Amount of time spent: 8 hours per week

Research methods:

Library: *Literature study, Trend analysis*

Lab: *A/B Testing, Data analytics*

Showroom: *Product quality review*

Workshop: *Ideation*