

Module 2: Understanding Neural Networks with Tensorflow

Assignment

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Assignment

Install TensorFlow on your system, after installing the framework, Solve the below mentioned problem statement.

A Prime equity fund has hired you as a data scientist to analyse the data of 50 potential investee companies and create a model that will find the type of companies that he should invest in to maximize the profit.

They want to see which types of companies perform better, for eg - a company which spends on marketing or which spends more on R&D.

| R&D Spend | Administration | Marketing Spend | State | Profit |
|-----------|----------------|-----------------|------------|-----------|
| 165349.2 | 136897.8 | 471784.1 | New York | 192261.83 |
| 162597.7 | 151377.59 | 443898.53 | California | 191792.06 |
| 153441.51 | 101145.55 | 407934.54 | Florida | 191050.39 |
| 144372.41 | 118671.85 | 383199.62 | New York | 182901.99 |
| 142107.34 | 91391.77 | 366168.42 | Florida | 166187.94 |
| 131876.9 | 99814.71 | 362861.36 | New York | 156991.12 |
| 134615.46 | 147198.87 | 127716.82 | California | 156122.51 |

The dataset can be downloaded from the link:

www.edureka.co/medias/fohk3v2vso/download?media_file_id=218717198

Column information:

- R&D spend - Research and Development expenditure of respective company.
- Administration - Administration expenditure of respective company.
- Marketing Spend - Marketing Spend of respective company.
- State - Location of company.
- Profit - Annual profit of respective company.

Perform the following tasks on the dataset

Task 1: Install TensorFlow on your system

→ Run a hello world command

Task 2: Train a **linear regression** model,

→ Train the linear regression model using training set

→ Test the created model using testing set

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