

Intelligent Agents - Assignment 4

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April 15, 2020

1 Introduction

Through this assignment, you are expected to learn basics of machine learning. A few algorithms (such as regression) and its applications is all what is covered here.

2 Data

The dataset contains several parameters which are considered important during the application for Masters Programs. The parameters included are :

- GRE Scores (out of 340)
- TOEFL Scores (out of 120)
- University Rating (out of 5)
- Statement of Purpose and Letter of Recommendation Strength (out of 5)
- Undergraduate GPA (out of 10)
- Research Experience (either 0 or 1)
- Chance of Admit (ranging from 0 to 1)

[1] Dataset : https://drive.google.com/open?id=1-6v3eC3SZGWRb2wMhxysP16_bJZMjWJP

3 Problem Statement

3.1 Part 1

Is there a relation between Undergraduate GPA and chance of admission ?

Deadline : April 15, 2020 23:59 hrs

3.2 Part 2

Develop a model which predicts the TOEFL score of a candidate if we input the same candidate's GRE score. For this, you will be required to upload the project on GitHub. Upload an instruction manual along with this explaining "How to download and run/test the code. Each team must generate a random realistic database (plagiarism will be condemned) and upload this as nyc.csv or la.csv according to your teams NYC and LA respectively. This database will contain 20 entries and the other team will try to make predictions on chance of admission.

Deadline : April 15, 2020 23:59 hrs

3.3 Part 3

Prepare a detailed documentation on how you approached the problem, bugs faced, why you finally settled for a particular model, important snippets of code, **how the other teams' data affected your model**, draw graphs to explain this and what are the trends you were able to observe.

Your documentation is the only source of communication between you and a person who goes through it. So bonus credit will be given for a great documentation.

Deadline : April 17, 2020 11:59 hrs

4 Teams

4.1 Team New York City

Abhishek Pai Angle, Tanay Sharma, Dev Moxaj Desai, Madhumitha S, Aum Jain

4.2 Team Los Angeles

Naman Agarwal, Divyanshi Kamra, Prasann Vishwanathan, Tushar Nandy

5 Hall of Fame

Rated out of 100 points the previous assignment

NYC - 41 points

LA - 35 points

6 Bibliography

[1] Mohan S Acharya, Asfia Armaan, Aneeta S Antony : A Comparison of Regression Models for Prediction of Graduate Admissions, IEEE International Conference on Computational Intelligence in Data Science 2019