Dream Masters Program Analysis?

By – Rohit Kumar Singh
Ranjith Kumar Govindarajan

Introduction

- University admissions can be confusing and stressful. Most of the times, in order to know the status of admission it can take up a lot of time.
- The purpose of this report is to help students in focusing on the parameters are important to get into post graduate college.

Questions Answered

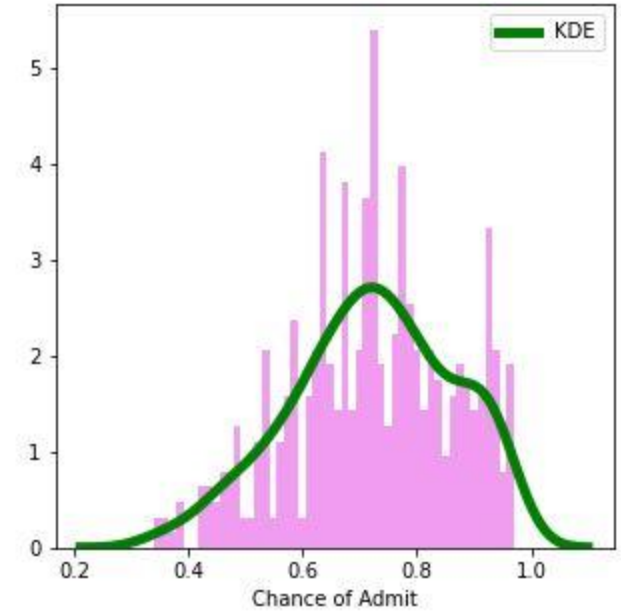
The questions I aim to answer in this report are the following:

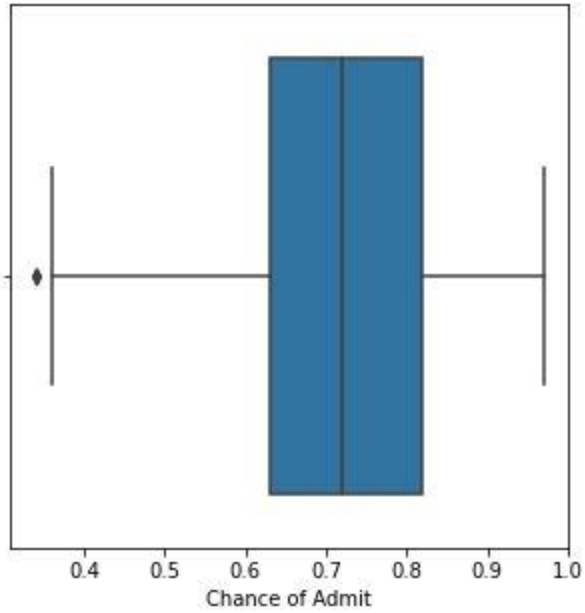
1. *Do GRE & TOEFL scores influence the chance of getting admitted?*
2. *Does having Research experience makes you score well in GRE & TOEFL?*
3. *Does the University Rating influence my SOP and LOR Rating?*
4. *What is the average SOP & LOR Rating of students who got admitted?*
5. *How does the University Rating improve the chance of getting admitted?*
6. *What should be your Scores for 0.9 % Chance of Admission?*

   & Few more bonus questions answered and their analysis.

Findings & Observations

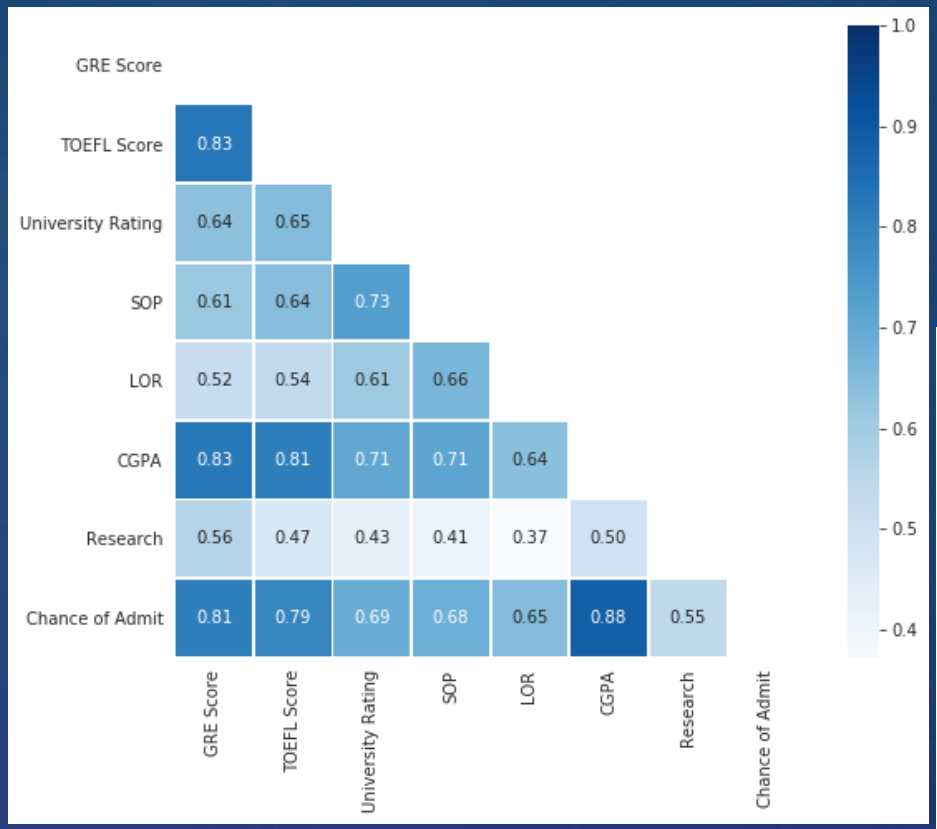
Visualizing the Target Feature's Distribution

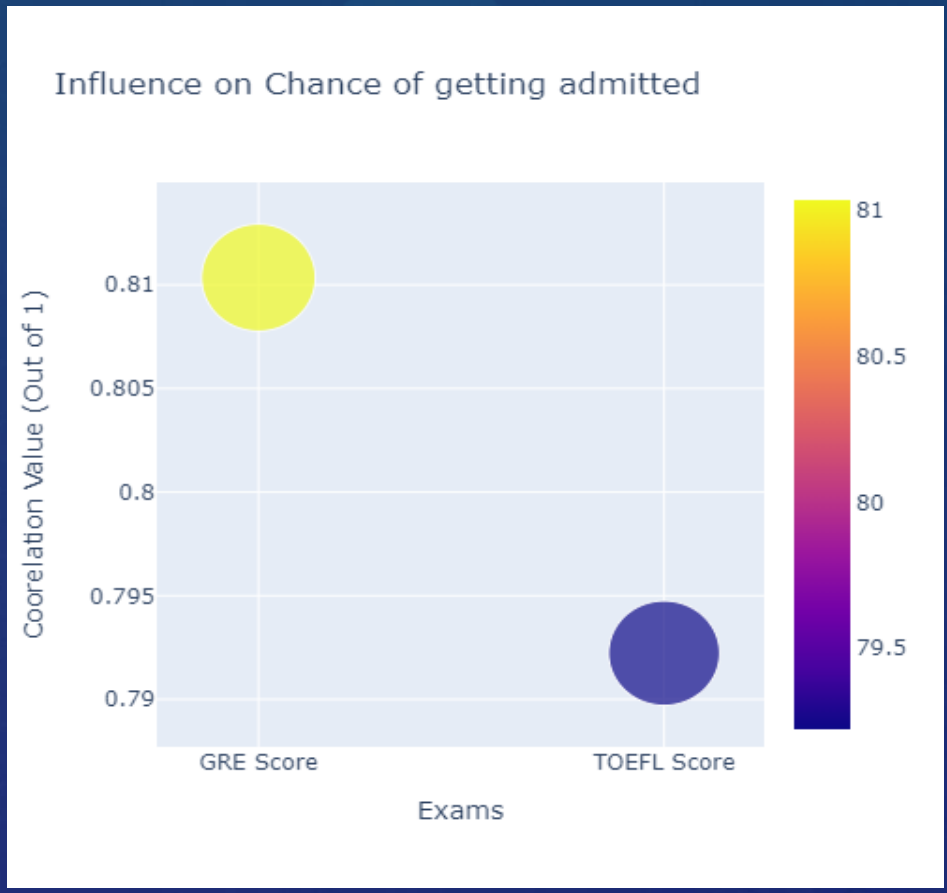




Here, we can see that chance of admit on average is 0.7.

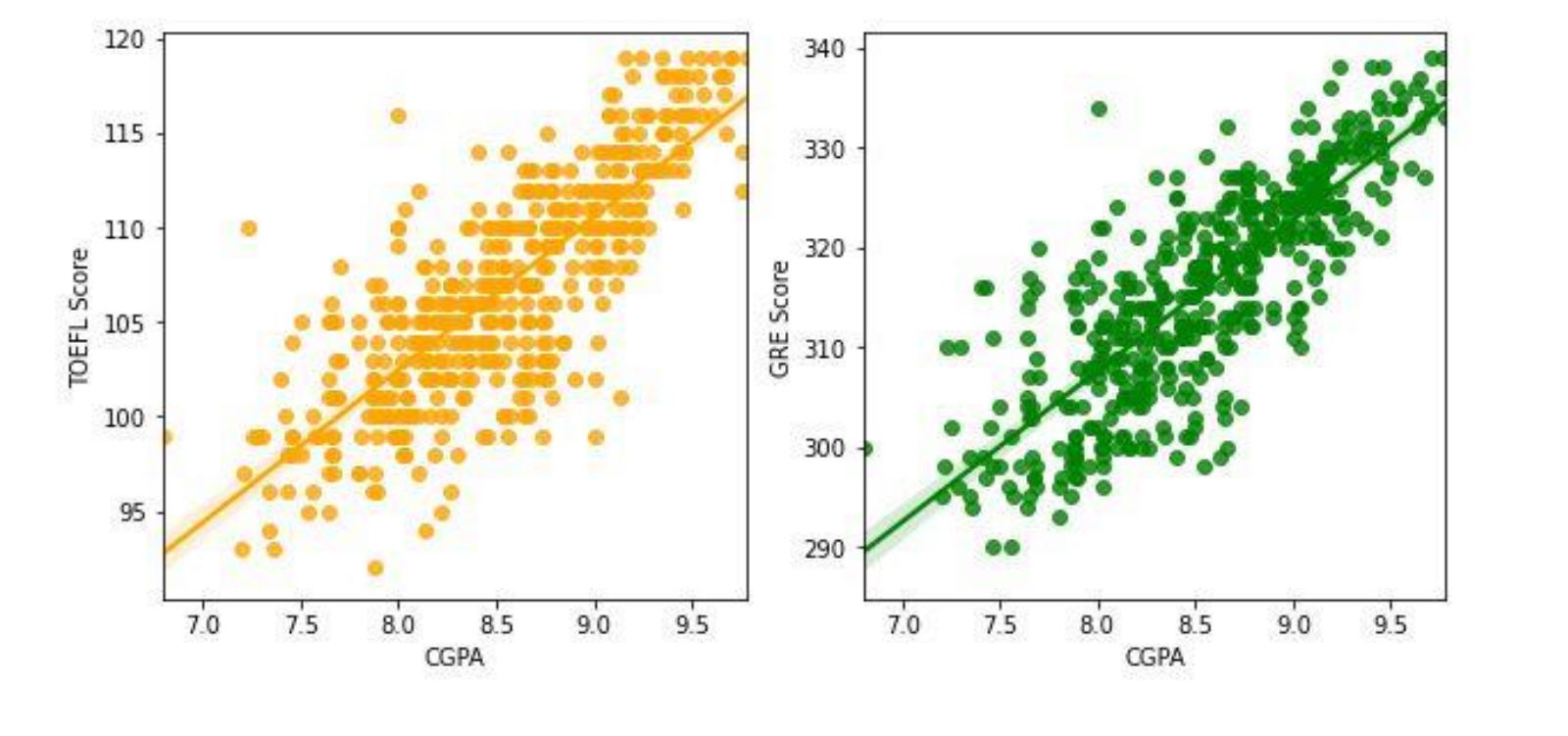
1. Do GRE & TOEFL scores influence the chance of getting admitted?





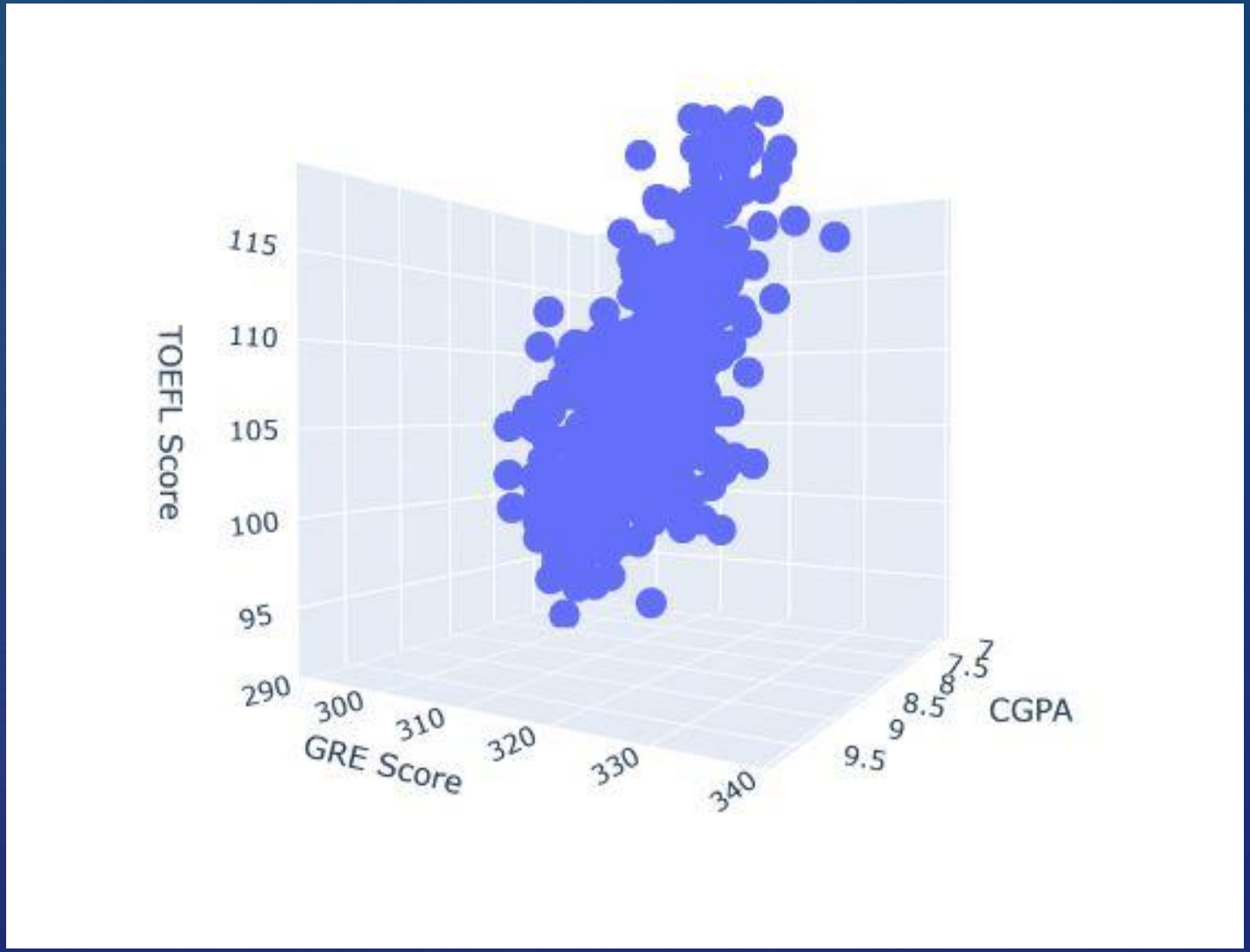
Here, we can see that the chance of admit is highly correlated with GRE and TOEFEL scores.
Higher the scores in TOEFL and GRE, Higher the chance of getting admitted.

Does the student who is academically good, doing well in GRE and TOEFL?

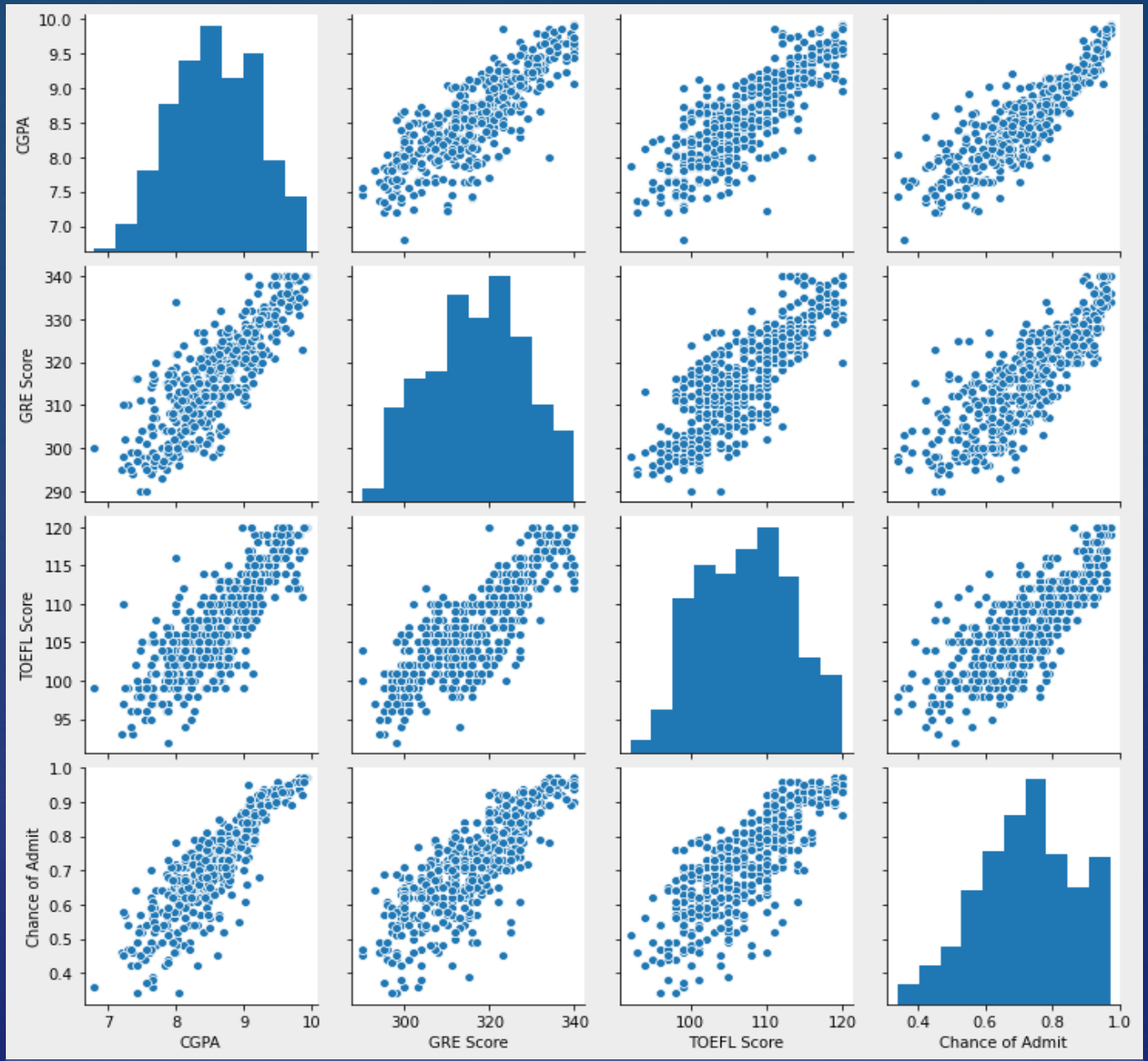


Yes it is!!!
The Academic toppers are the top scorers in both TOEFL and GRE

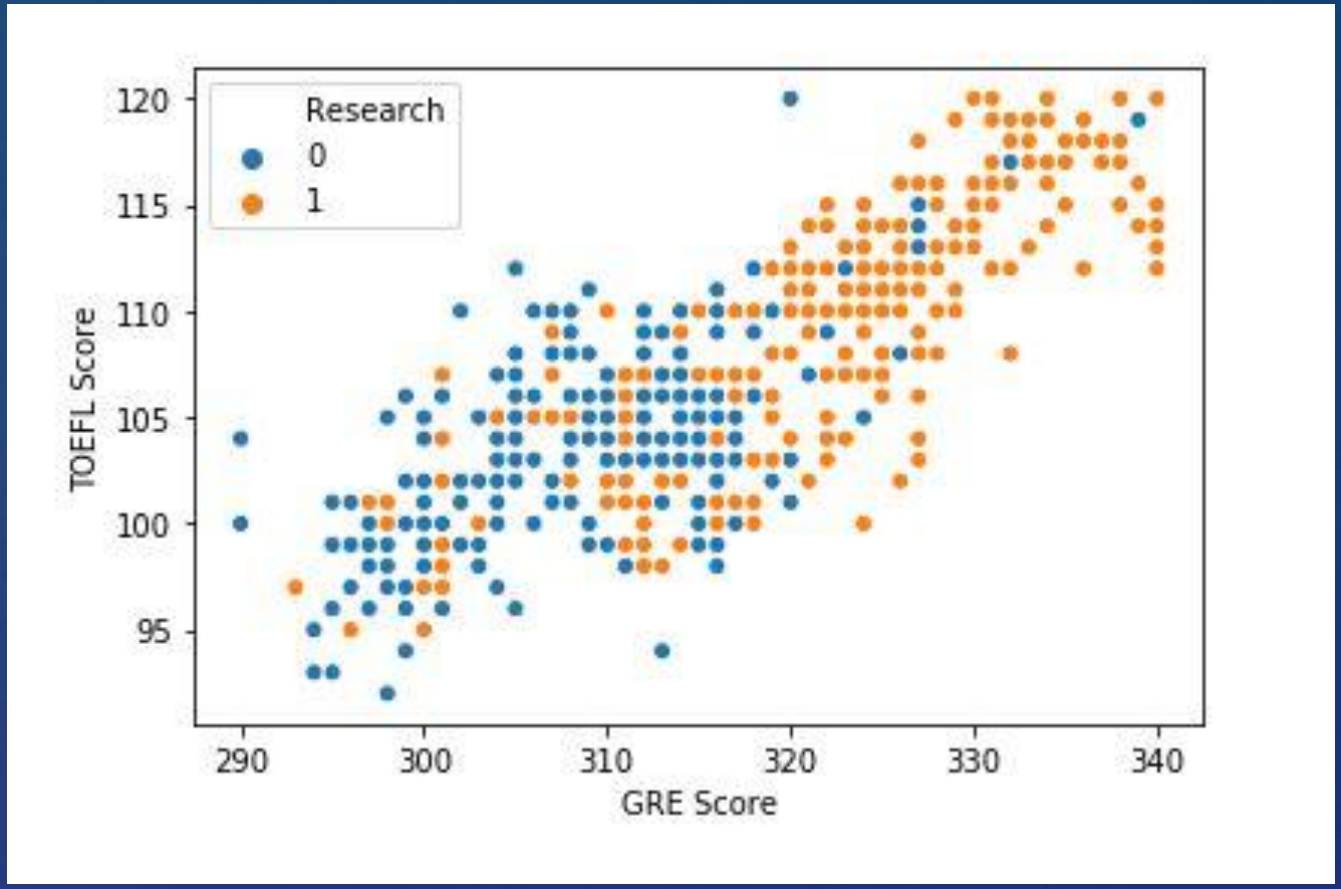
3-D Visualization of CGPA, GRE Score and TOEFL Score.



Pairwise relationship between important attributes

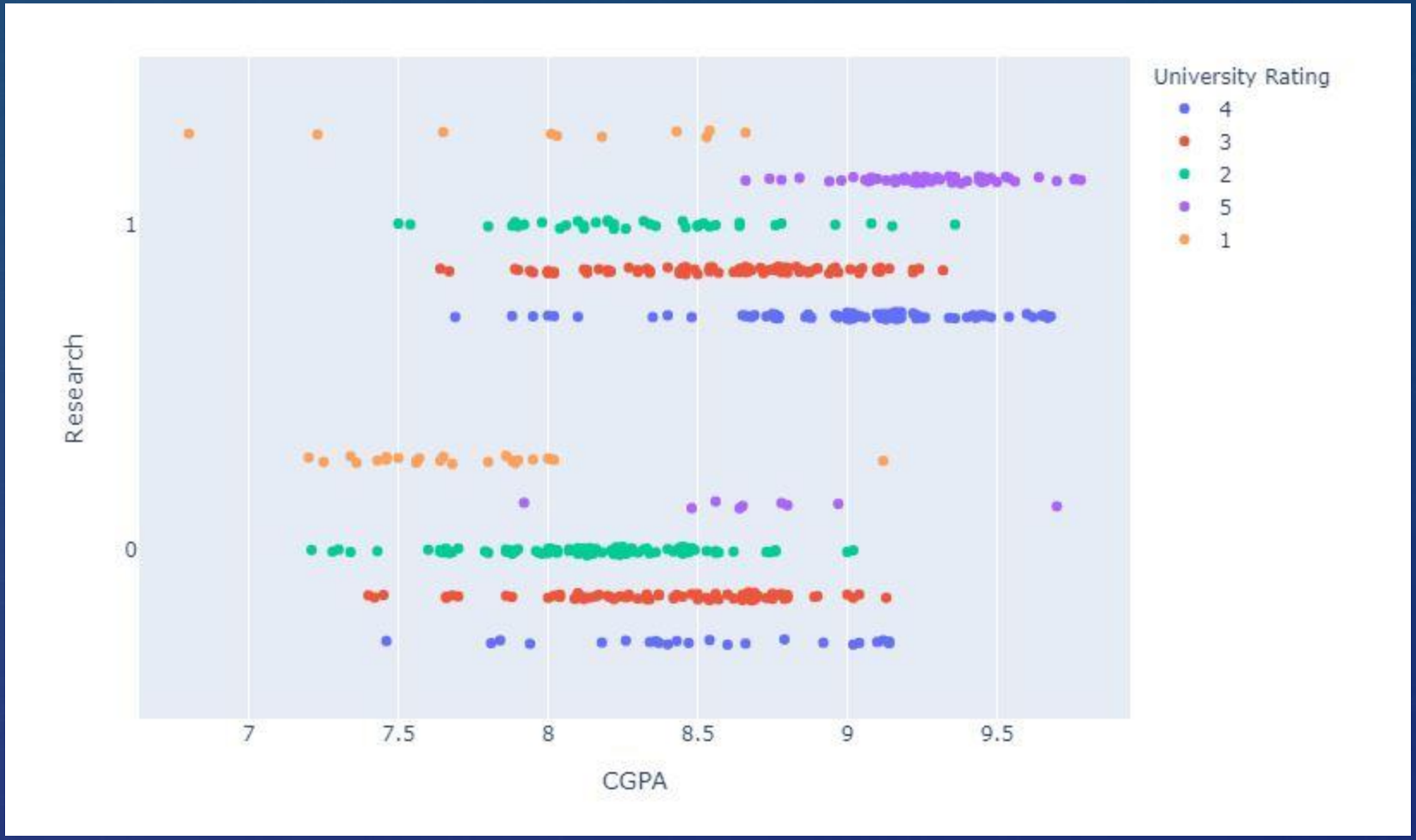


2. Does having Research experience makes you score well in GRE & TOEFL?



Here, We can easily see that Students who have done research do have good TOEFL and GRE Score maybe because they are smart or hard working

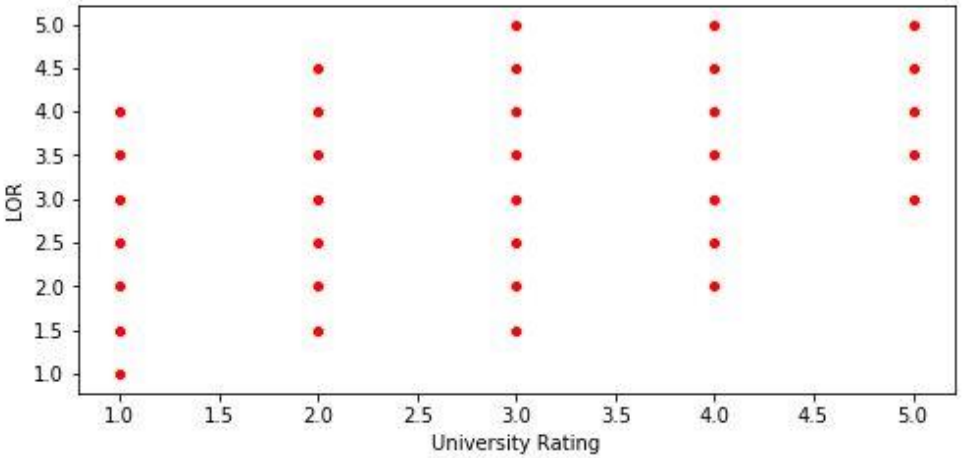
Does the Student from top universities are doing research papers?

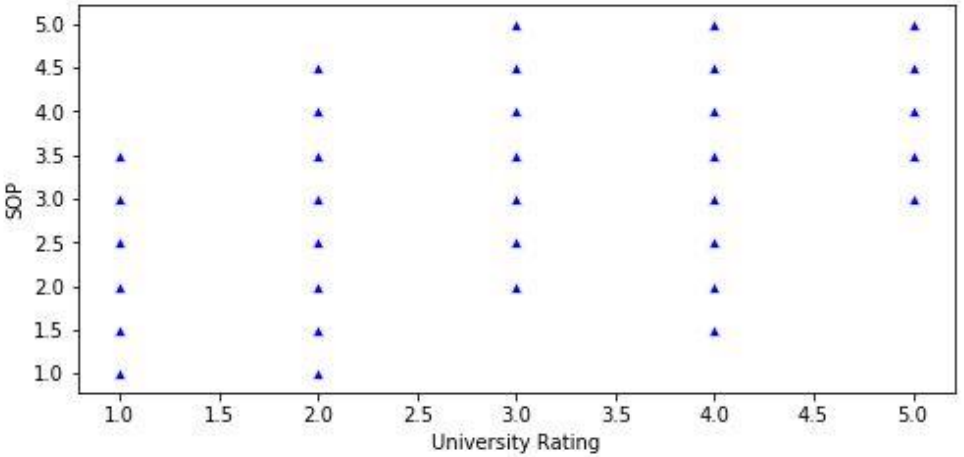


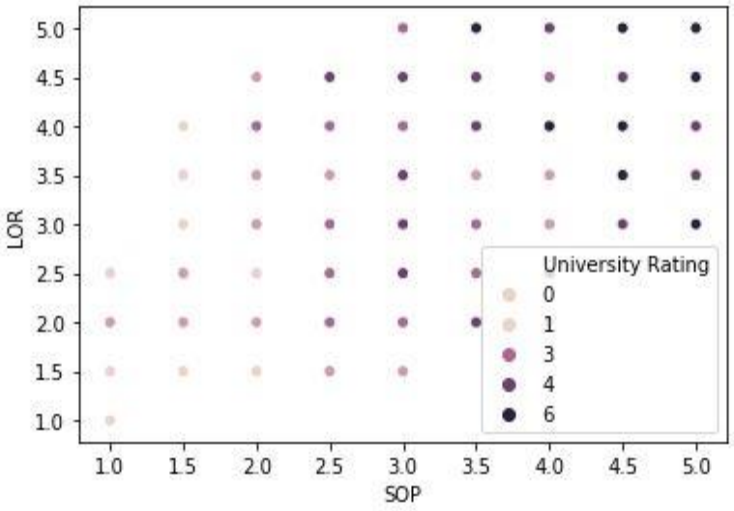
Here, Mostly the students from top univerties with ratings more than 3 are releasing research papers and also they are scoring good CGPA(>8).

3. Does the University Rating influence SOP and LOR Rating?

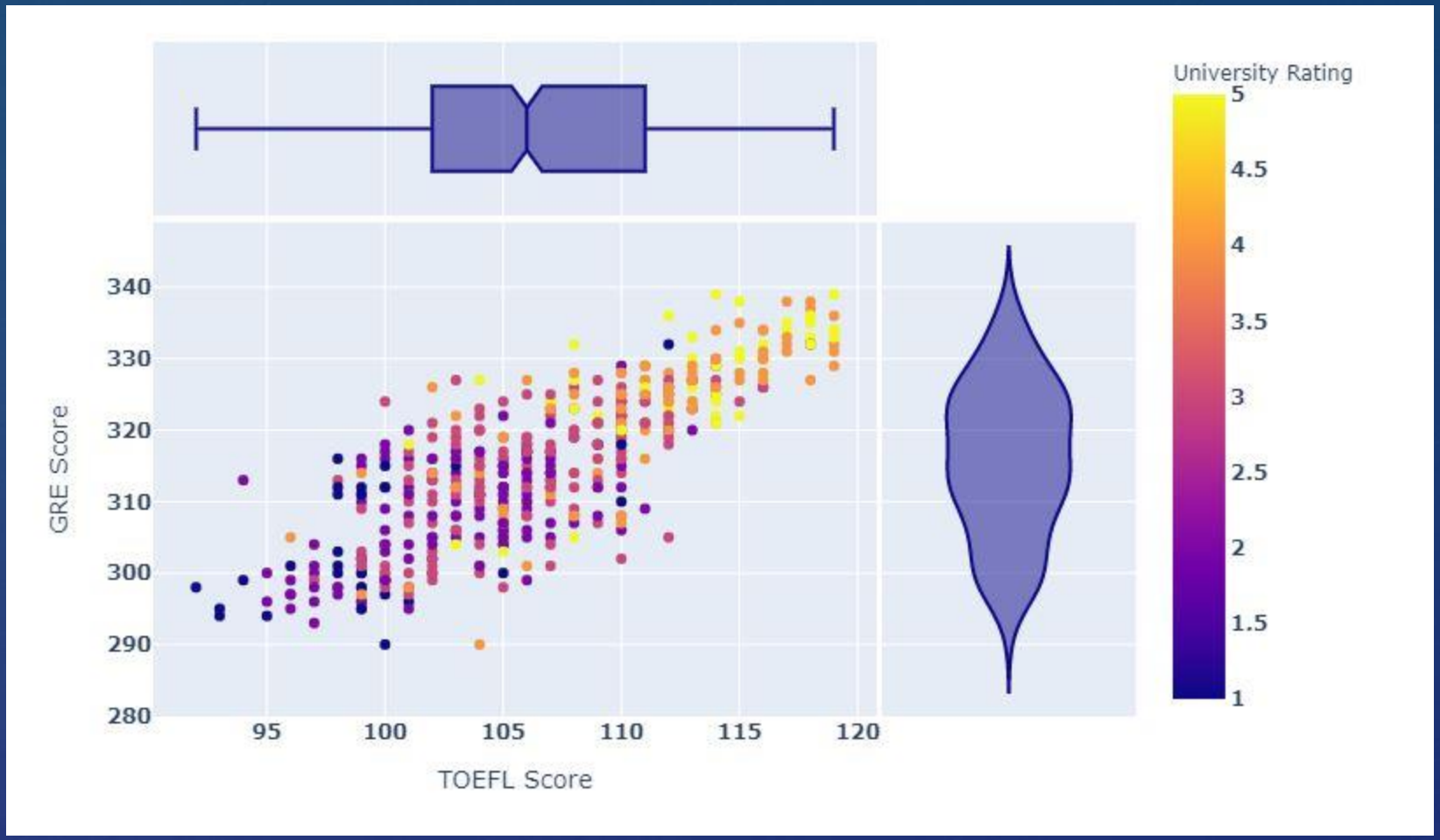
Implied conclusion :-
Higher ratings of university further increase the rating of LOR and SOP.





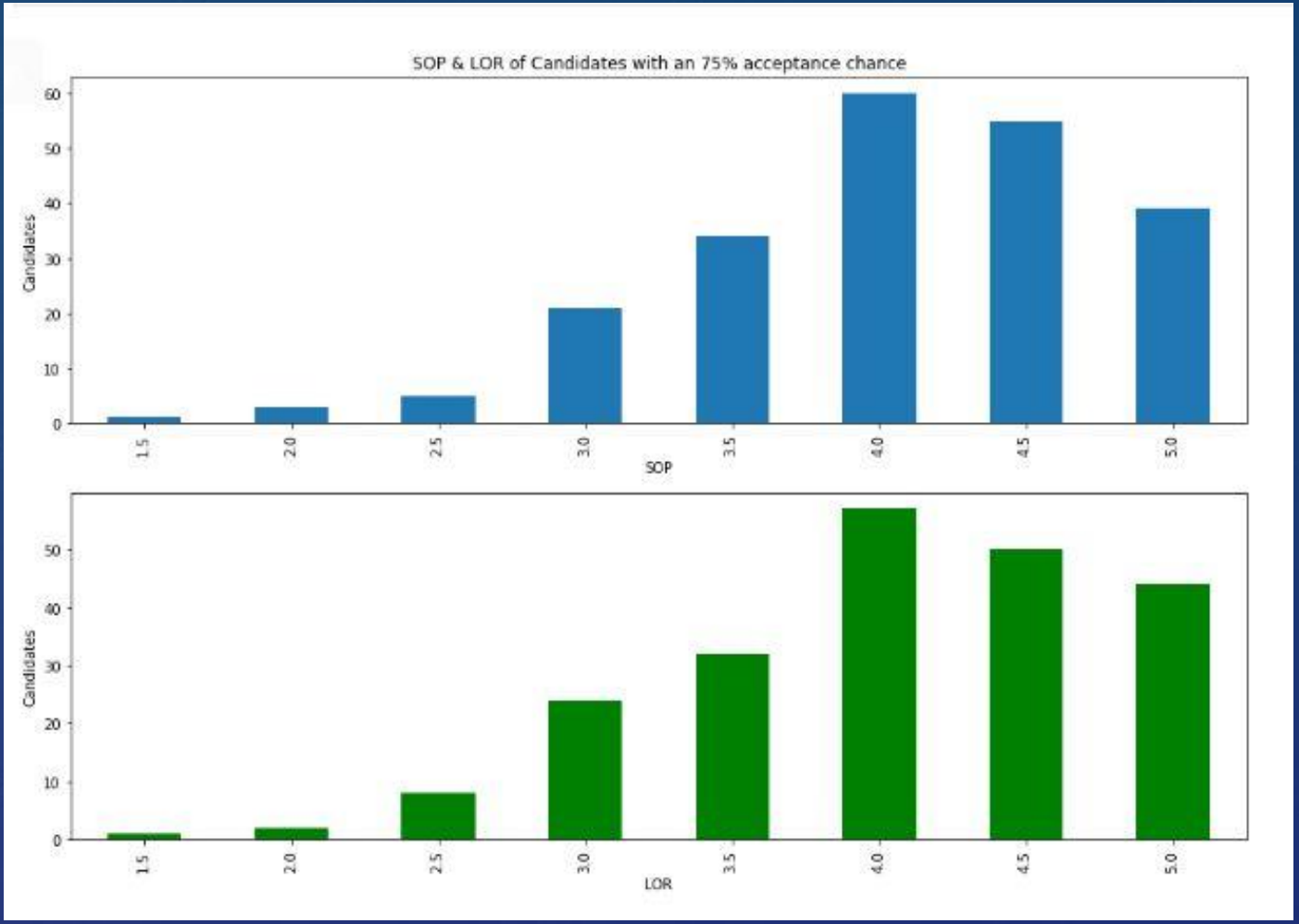


Who are the toppers in GRE, the students from top universities or normal universities?



The top scorers in GRE and TOEFL are mostly from the University with Ratings more than 4.

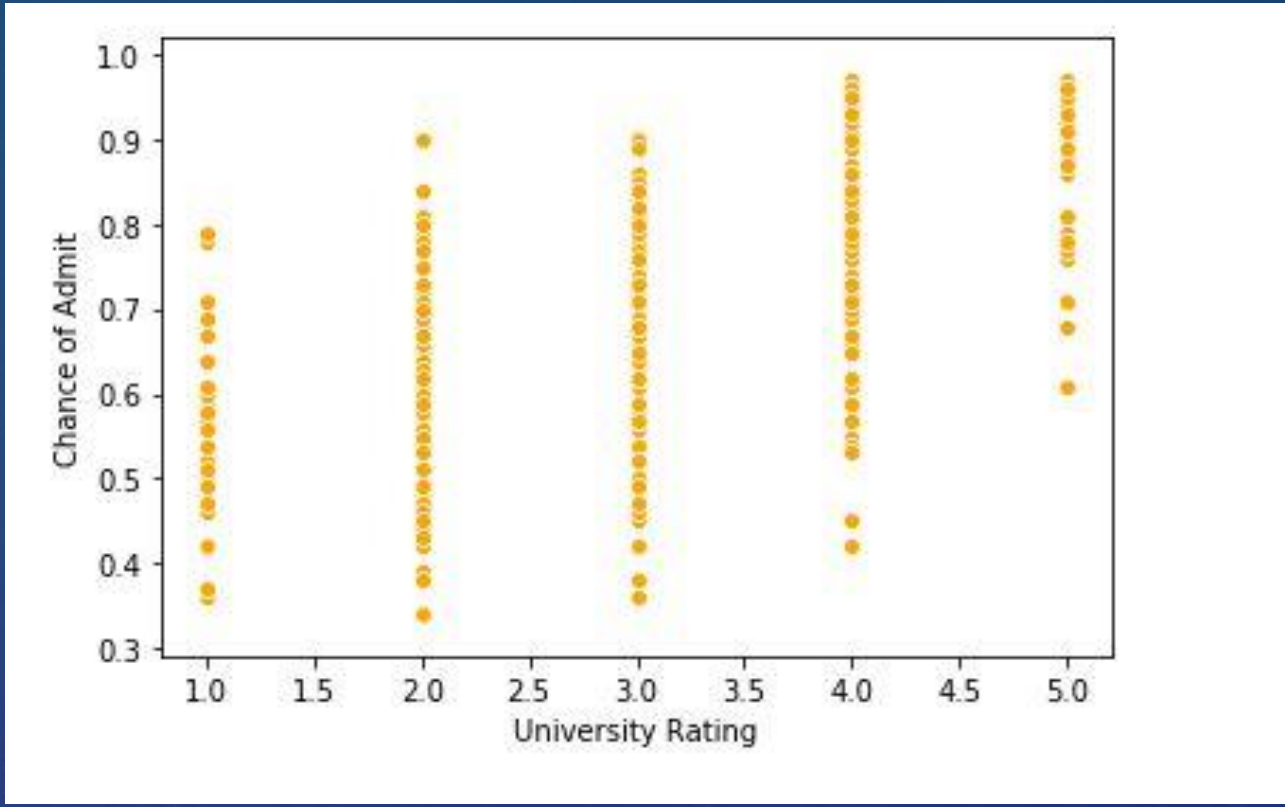
4. What is the average SOP & LOR Rating of students who got admitted?



Candidates with 75% acceptance chance :
Average SOP Rating : 4.06 out of 5
Average LOR Rating : 4.05 out of 5

(Assumption : 75 % Acceptance chance is taken as students who got admitted.)

5. How does the University Rating improve the chance of getting admitted?



Conclusion : Increase in ratings of university leads to the increase in the chance of admit.

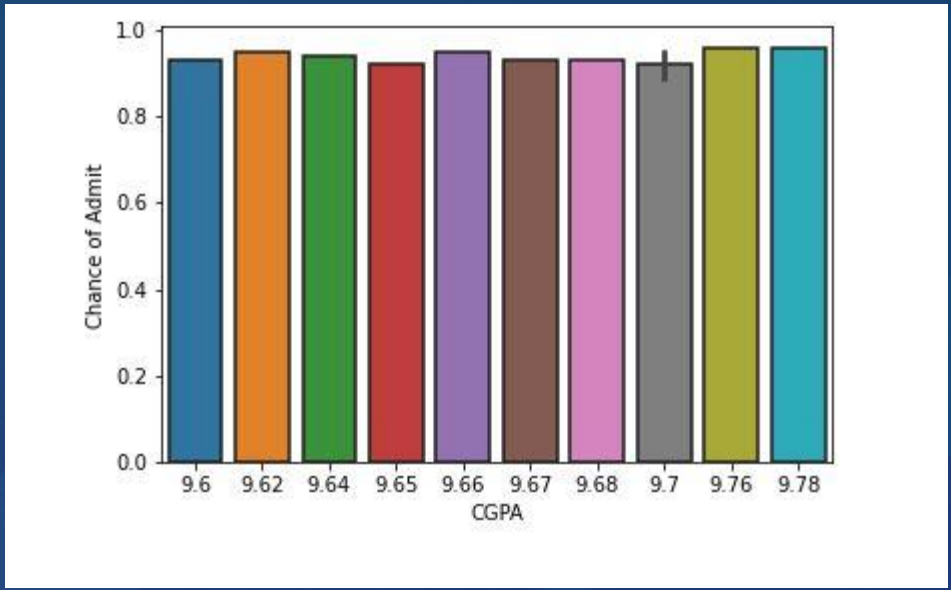
6. What should be your Scores for 90 % Chance of Admission?

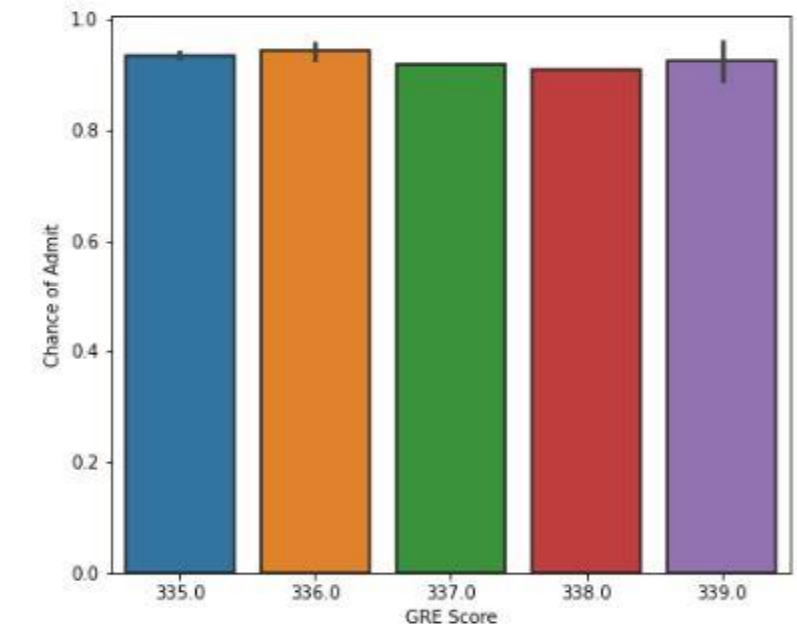
GRE Score	332.852459
TOEFL Score	116.213115
University Rating	4.655738
SOP	4.549180
LOR	4.516393
CGPA	9.523443
Research	1.000000
Chance of Admit	0.935574

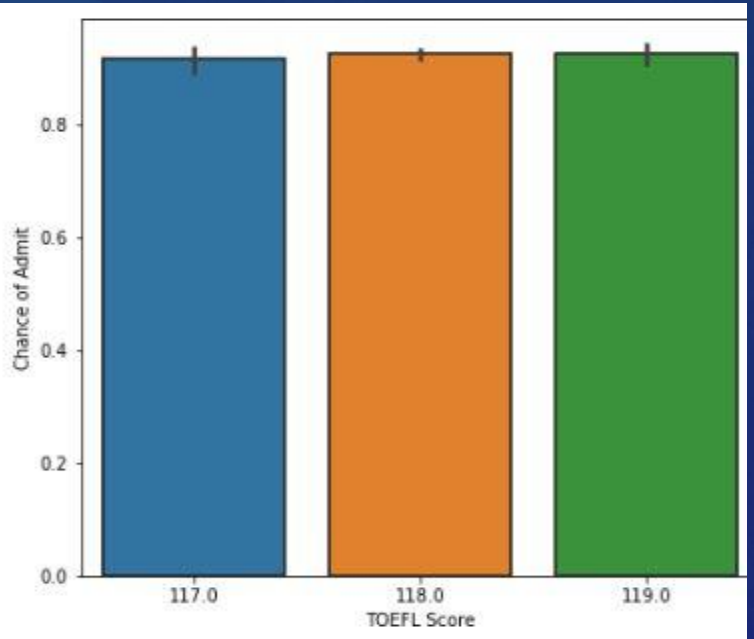
For having a 93.5% chance to get admission one should have on avg : GRE=333.61, TOEFL=116.28, CGPA=9.53.

If you get scores more than this then your chances of admission are very good.

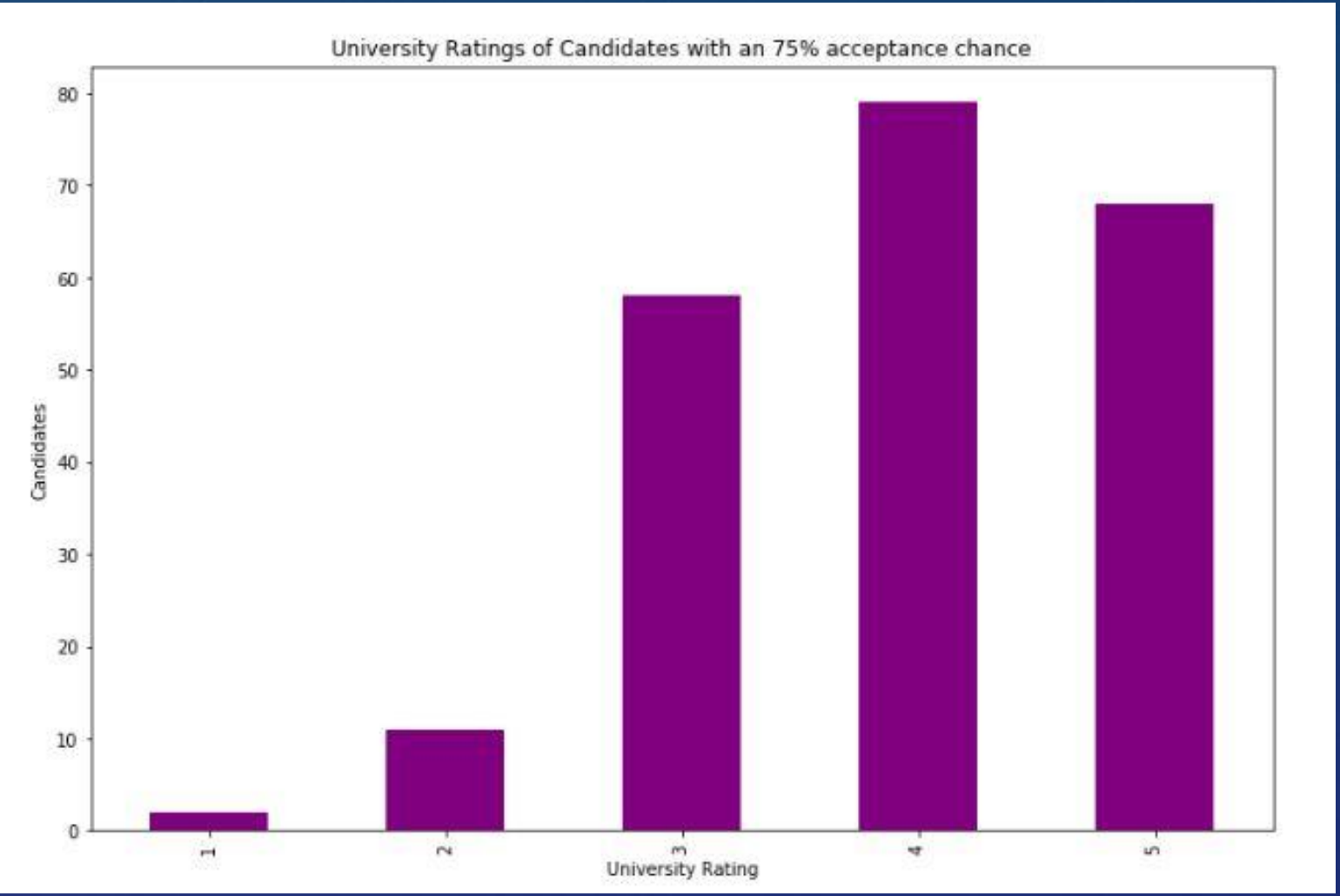
What is the analysis of Academic, TOEFL and GRE Toppers ?







7. What is the distribution of University Ranking for 75% Chance of Admission ?



University Ranking of 4 or 5 students have high chance to admission.

Bonus (A) : Top 15 students to have Chance of Admission?

GRE Score	TOEFL Score	University Rating	SOP	LOR	CGPA	Research	Chance of Admit
340	120	5	4.5	4.5	9.91	1	0.97
340	120	4	4.5	4.0	9.92	1	0.97
336	119	5	4.0	3.5	9.80	1	0.97
334	120	5	4.0	5.0	9.87	1	0.97
336	112	5	5.0	5.0	9.76	1	0.96
333	119	5	5.0	4.5	9.78	1	0.96
337	117	5	5.0	5.0	9.87	1	0.96
340	120	4	5.0	5.0	9.50	1	0.96
339	114	5	4.0	4.5	9.76	1	0.96
339	116	4	4.0	3.5	9.80	1	0.96
340	113	4	5.0	5.0	9.74	1	0.96
335	117	5	5.0	5.0	9.82	1	0.96
340	115	5	5.0	4.5	9.06	1	0.95
333	117	4	5.0	4.0	9.66	1	0.95
338	120	4	5.0	5.0	9.66	1	0.95

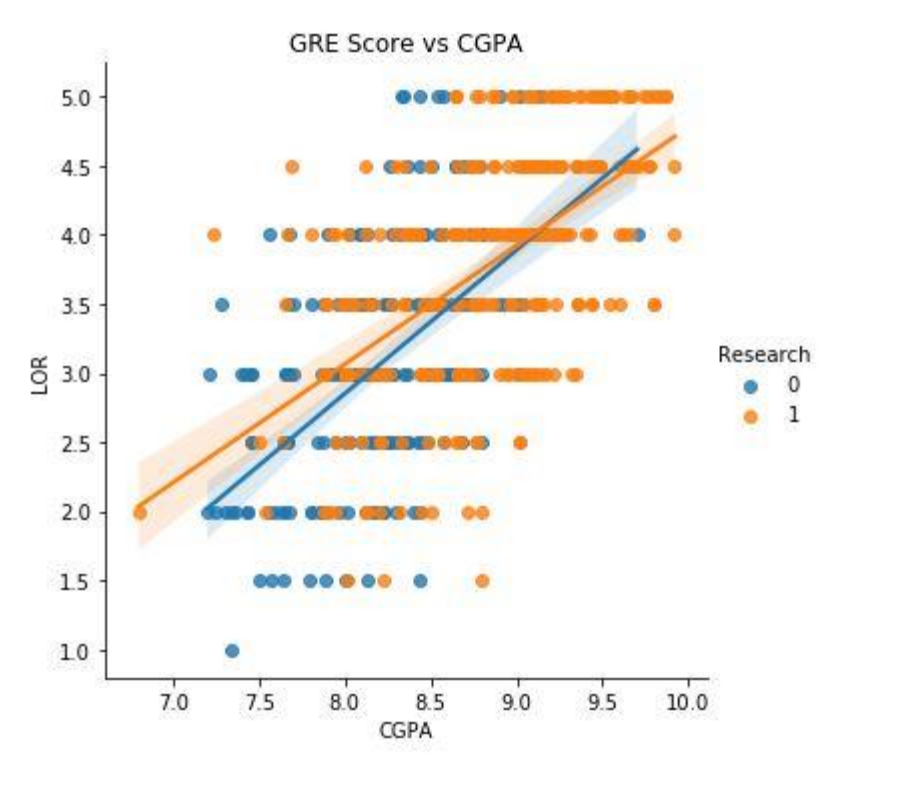
Here, TOP 15 Students With Highest Chance of Admission.

8. To be among top 15 to get admission one should have ?

```
To be among top 15 to get admission one should have
                  GRE Score  337.333333
                TOEFL Score  117.266667
          University Rating    4.600000
                        SOP    4.666667
                        LOR    4.533333
                       CGPA    9.727333
                   Research    1.000000
            Chance of Admit    0.960667
```

Here, we can see that to be among top 15 to get admission, one should have GRE = 337.33, TOEFL = 117.26, CGPA = 9.72 , University Ranking = 4.60.

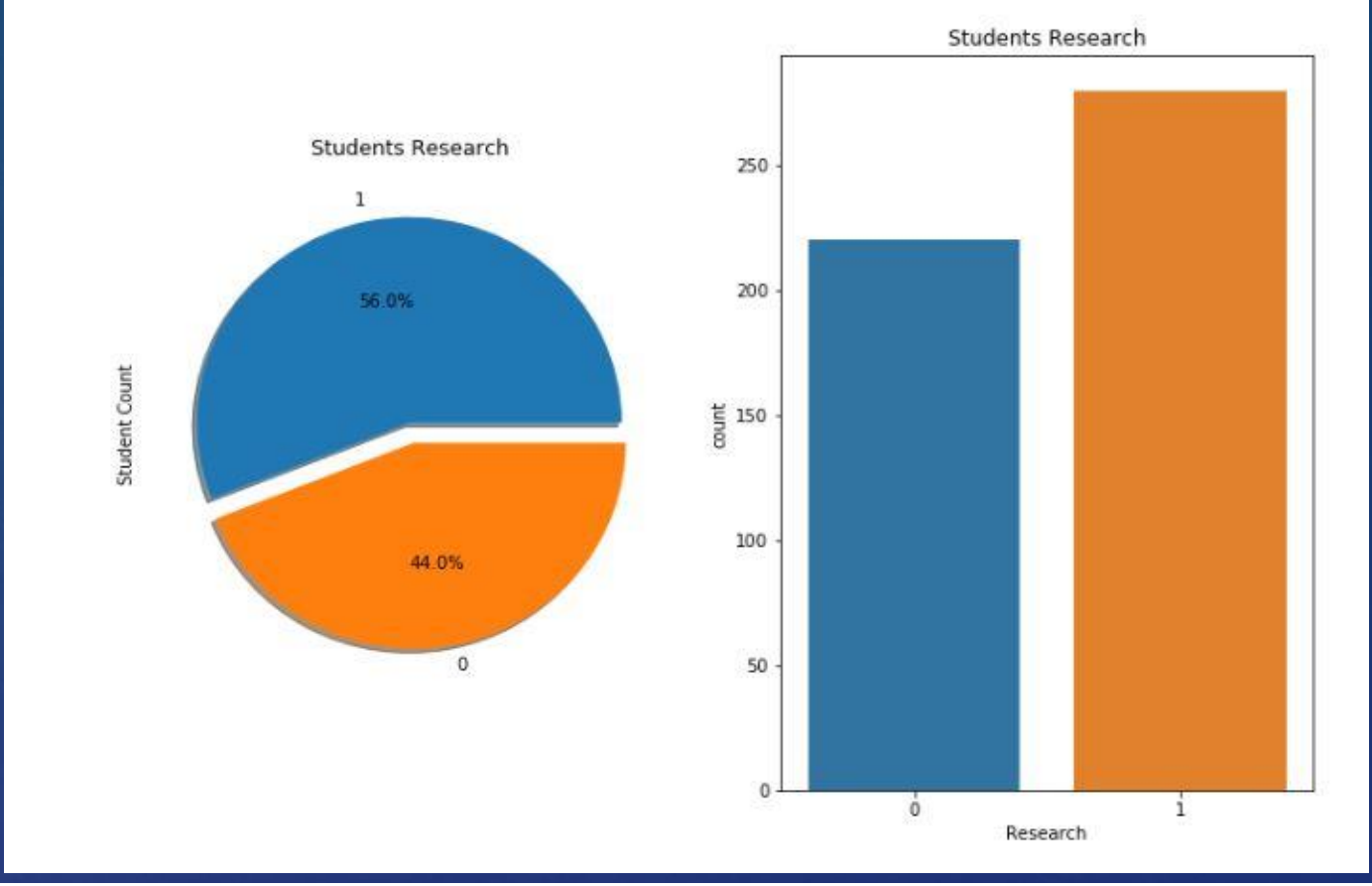
9. Define the relationship between LOR to CGPA and Research.



Conclusion (A) : LORs are not that related with CGPA so it is clear that a persons LOR is not dependent on that persons academic excellence.

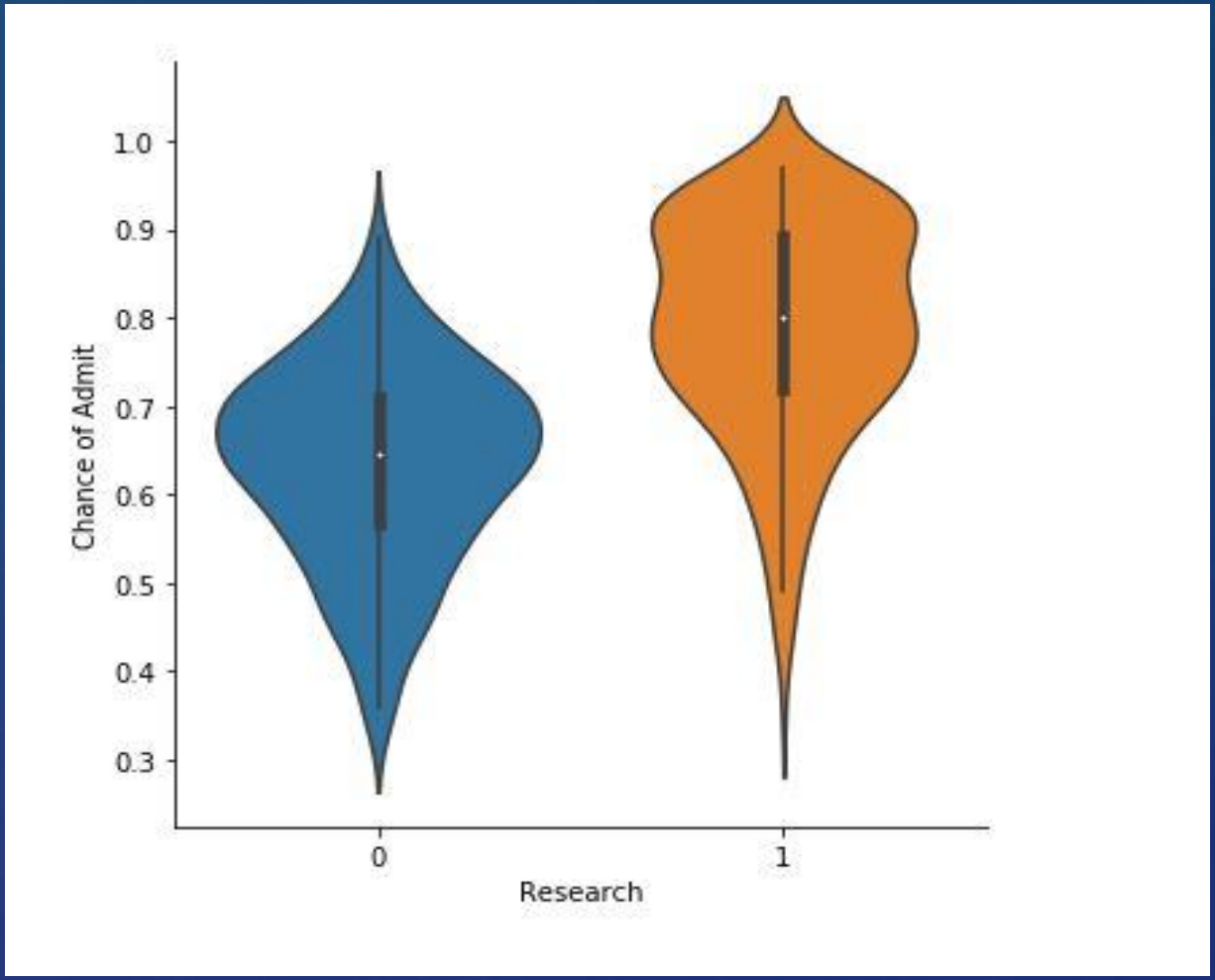
Conclusion (B) : Having research experience is usually related with a good LOR as supervisors have personal interaction with the students performing research which usually results in good LORs..

Bonus (B). How important is Research to get an Admission ?



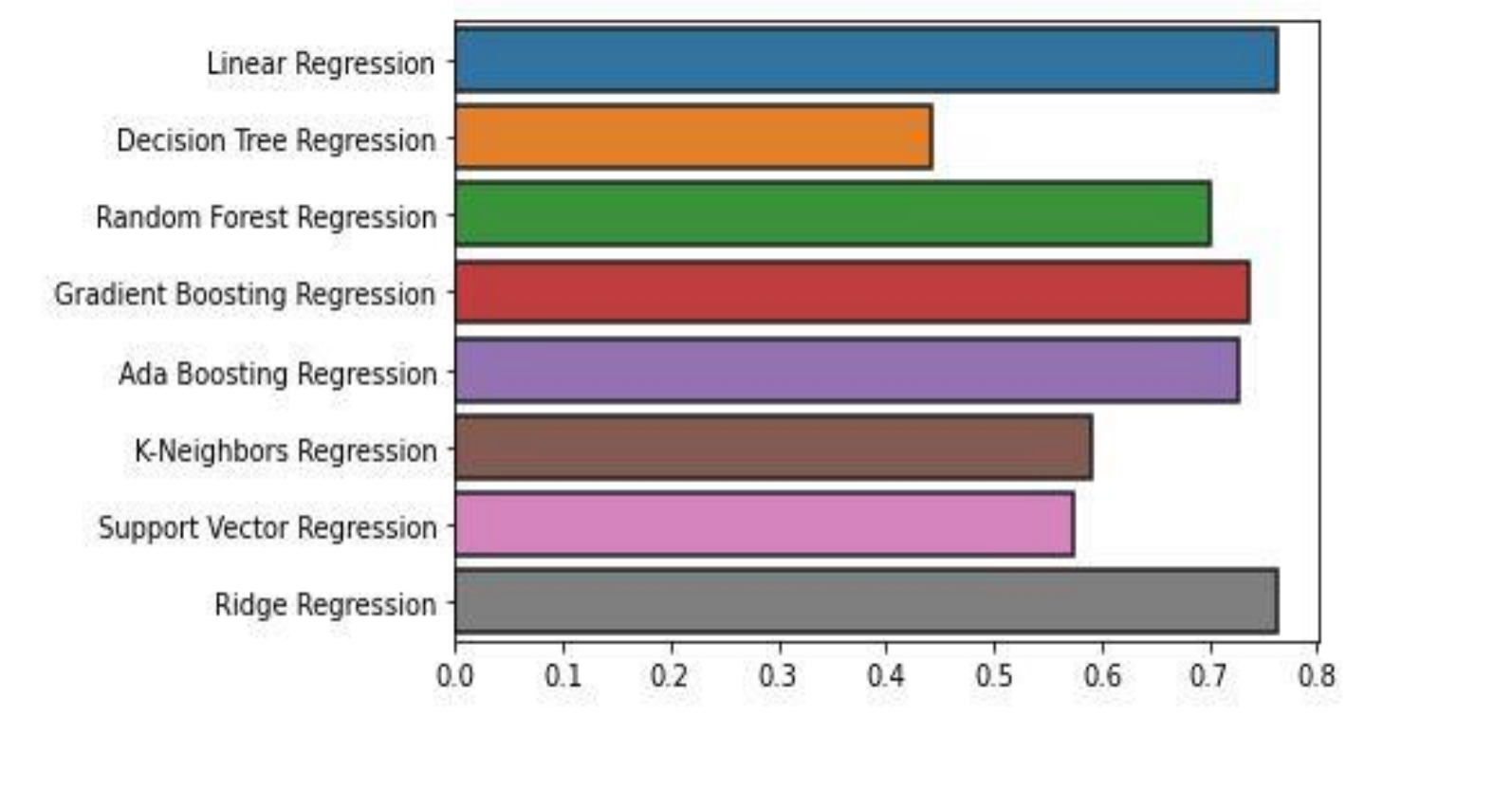
(A) 55% of Students have done Research. It possible only the better student could get a chance for doing research. Doing research does add practical knowledge and increases the student skill of working with groups or teams.

10. Does Research truly helps to get an Admission ?



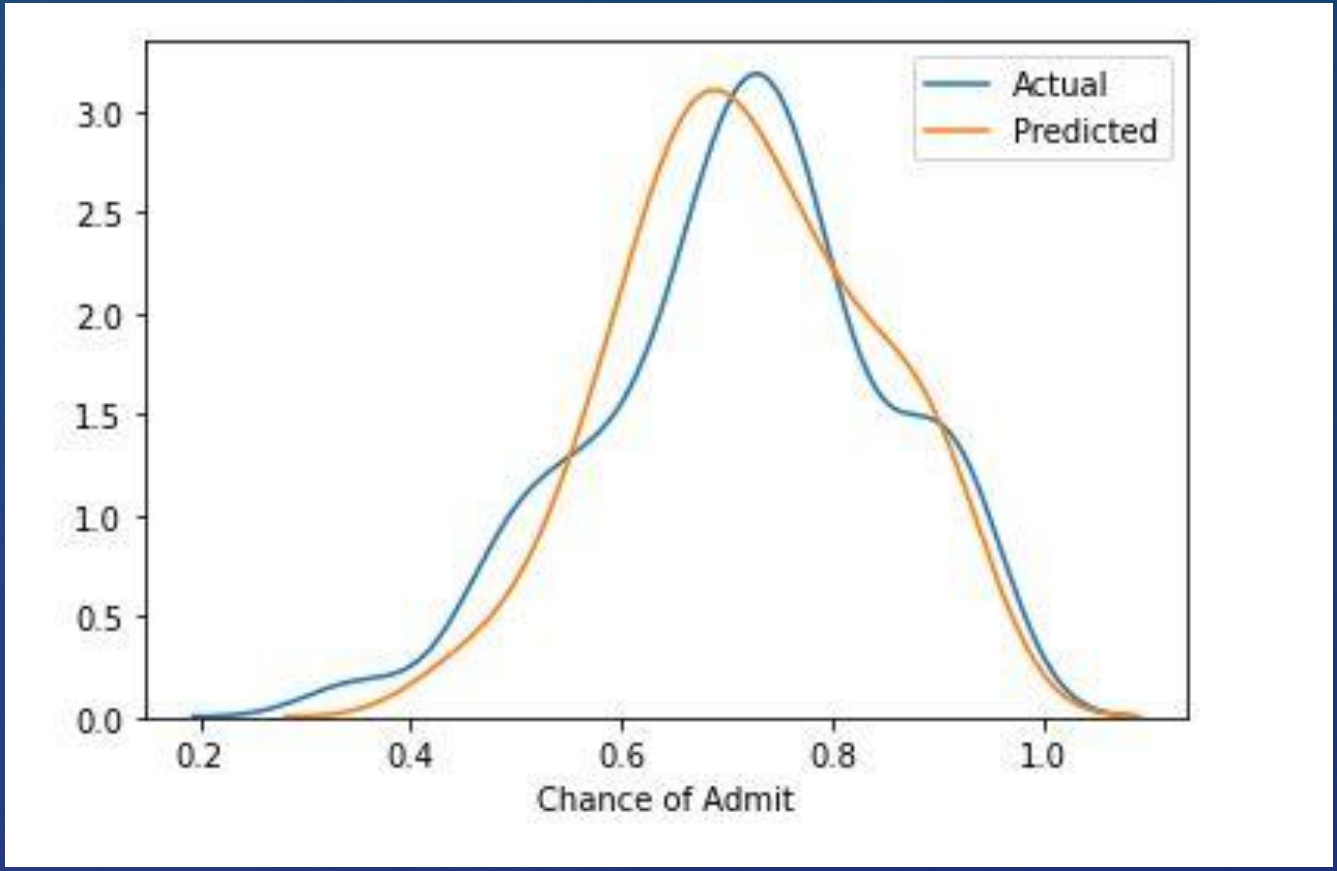
(B) Yes, Chance of Admission increases if one does Research.

Predictive Modelling



As the accuracy is high for linear regression we will use it as our final model

Actual value VS Predicted value



Thank You !!!

-- Rohit Kumar Singh.
-- Ranjith Kumar Govindarajan

(*All the dataset, images, graphs, figures and comments are solely taken from respective website.)