STATISTICAL REPORT

Graduate Admission

QUANG HUYNH
ANH NGO

THANH NGUYEN
MINH THAI

GRADUATE ADMISSION

Statistical Report

Quang Huynh

Thanh Nguyen

Anh Ngo

Minh Thai

Bachelor of Data Science 2020

S P Jain School of Global Management

Prof. Suchismita Das

January 06, 2021

Contents

Acknowledgement

This report will not be completed without the assistance of every member in the Avenger Team. First and foremost, we give special thanks to our professor Suchismita Das for helping us with guidelines, choosing a dataset and assisting in our research. One more time, thank you to all creative team colleagues: Quang, Thanh, Anh, Kylie for their motivation and marvellous ideas.

1. Introduction

1.1 Report Objectives

The data set contains records of 400 students' chances of admission in a Data Science Master Program in UCLA (University of California, Los Angeles) based their performance on six criteria. In this paper, our team will focus on the summary of each statistics and pay heed to correlation between variables, especially relationship with rate of admission.

To that end, the random sample of size 100 will be used to analyse instead of 400 data points. Then, some hypotheses will be put forward and tested.

1.2 Problem Statement

Nowadays, competitions of being admitted in a university between applicants have been intensified more than ever. Hence, without solid understanding about significant factors in the rate of acceptance, students easily failed to be accepted in a college. Indeed, there is no doubt that students have to know their own capacity based on GPA, SAT, CGPA grades, etc. to come up with the best decision.

This dataset was constructed with the purpose of assisting students in shortlisting colleges with their profiles. Also, it helps the school seek for the most potential students.

Moreover, our observation will be put forward with the help of two software: Microsoft Excel 365 and JMP Pro 15 as statistical tools. Finally, numerous hypotheses would be checked to estimate relevant data for the whole.

2. Overview

The dataset is built with the purpose of predicting graduate admissions and helping students in shortlisting universities with their profiles by giving them a fair idea about their chances for a particular university.

Hence, in this statistical report, we include the six considerable aspects as mentioned before: GRE Scores, TOEFL Scores, University ranking, Statement of Purpose (SOP), Letter of Recommendation (LOR), Undergraduate (CGPA), Research Experience to analyse their Chance of Admission and evaluate what is the most crucial factor. To that end, various analysis methods from univariate method to bivariate would be used to summarise the data statistics, its distribution as well as finding relation.

This dataset is inspired by the UCLA Graduate Dataset and is owned by Mohan S Acharya.

3. Dataset Exploration

3.1. Dataset Dictionary

The ***GRE,*** standing for Graduate Record Examinations, is a standardized test that is an admission requirement for postgraduate courses in some colleges and universities. It is a continuous variable, on a scale of 0 – 340 points.

The ***TOEFL***, standing for Test of English as a Foreign Language, is a standardized test to measure the English language ability of non – native speakers. It is a continuous variable, on a scale of 0 – 120 points.

The ***CGPA*** stands for the student's cumulative grade point average, which represents the average of grade points obtained in all the subjects by the student. It is a continuous variable, on a scale 0-10.

University rating represents the student's undergraduate university ranking. It is on a scale 0 – 5.

Research Experience indicates whether a student has research experience or not. It is represented either 0 or 1.

SOP, standing for the strength of Statement of Purpose is a necessary document for graduate applications, where student introduce themselves including objectives, education, hobby, etc. The values were (mostly) entered by the students, and it is on scale 1-5.

LOR, standing for the strength of Letter of Recommendation, is as important as SOP when applying in a university. It plays an integral part as a witness for anything the students represent in SOP. It is usually written by students' teachers or professors. The values were (mostly) entered by the students, and it is on scale 1-5.

Chance of admit (ranging from 0 to 1) is a parameter that was asked to individuals before the results of the application. Hence, this column is not an actual probability of admission estimated by the universities or something, rather, it is an estimation by the student themselves of how likely they will be admitted to the university.

3.2 Descriptive analysis

Descriptive statistics is the term used to quantitatively interpret information and helps to explain, display data or summaries features in a concise manner. Descriptive analysis focuses on the summary of a sample, rather than learning the information about population, which is different from inference statistics. And below those measures have been taken for all seven variables independently.

	GRE Score	**TOEFL Score**	**University Ranking**
Mean	317.25	107.32	3.08
Std Dev	11.402086	6.06103	1.864555
Sum	31725	10732	308
Variance	130.00758	36.724848	1.4076768
Skewness	-0.219411	0.0278058	0.1759
Kurtosis	-0.733173	-0.602524	-0.788442
Minimum	295	94	1
Maximum	340	120	5
Median	318	107	3
Mode	324	110	3
Range	45	26	4
IQR	16.75	8.75	2
Count	100	100	100
Upper 95% Mean	319.51242	108.52246	3.3154185
Lower 95% Mean	314.98758	106.11754	2.8445815

	SOP	LOR	CGPA	Chance of Admit
Mean	3.495	3.545	8.6225	0.7221
Std Dev	0.9387693	0.910364	0.6284475	0.1488834
Sum	349.5	354.5	862.25	72.21
Variance	0.8812879	0.8287626	0.3949462	0.0221663
Skewness	-0.302942	-0.289764	-0.263094	-0.443929
Kurtosis	-0.497853	-0.442533	-0.231651	-0.330157
Minimum	1	1	6.8	0.34
Maximum	5	5	9.91	0.97
Median	3.5	3.5	8.665	0.73
Mode	4	4	8.1	0.8
Range	4	4	3.11	0.63
IQR	1	1	0.91	0.2075
Count	100	100	100	100
Upper 95% Mean	3.6812722	3.725636	8.7471976	0.7516417
Lower 95% Mean	3.3087278	3.364363	8.4978024	0.6925583

4. Graphical data analysis

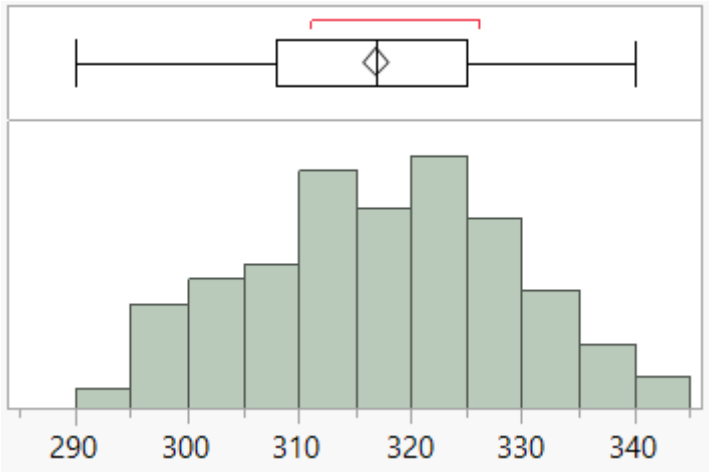
4.1 Univariate Analysis

This analysis focuses on one variable at a time. It doesn't mention the relationship between variables; instead, its major perspective is describing how the variable is distributed, taking summary and finding patterns by using some descriptive statistics and some charts like Box plot, Histogram, etc.

i. Histogram: A histogram is a graphic presentation of a univariate dataset. Based on its shape, it is used to find out the distribution of variables, the frequency of its occurrence and categories.

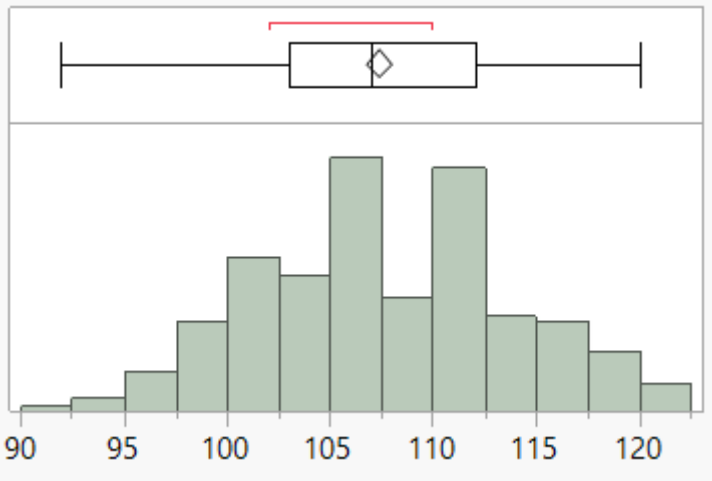
ii. Box plot: is a method for depicting distribution of variables from five values of a dataset: minimum, maximum, first quantile, median, third quantile, we can construct a box plot. Using box plot, the data which is not included in between whiskers, called outliers, can be detected easily.

4.1.1. GRE score



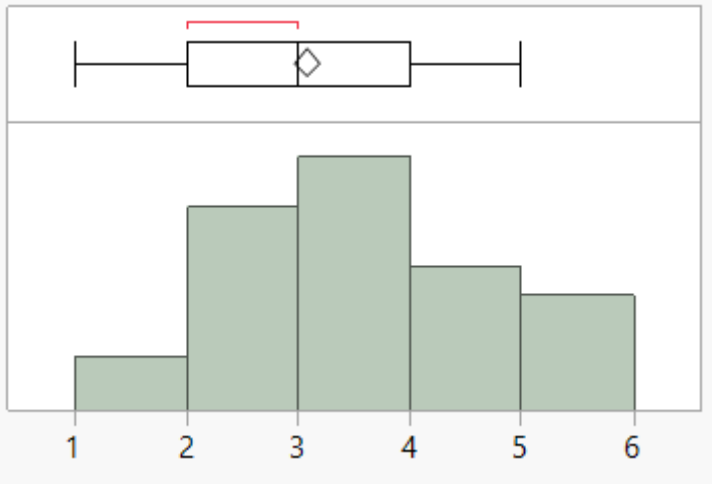
- Lengths of the two whiskers are quite equal, which indicates the distribution of this variable is symmetric. Hence, the GRE scores are very close to a normal distribution.
- The average score is roughly 316.8 with a standard deviation of 11.47. The IQR is 17.
- Based on the box plot, there are no extreme values; median and mean values are nearly the same. (around 317).

4.1.2. TOEFL score



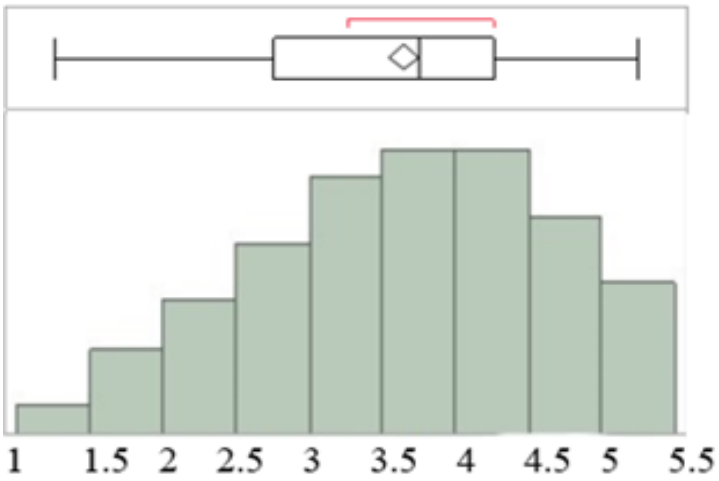
- TOEFL scores are normally distributed.
- The average TOEFL score is 107 with a standard deviation of 6.07. IQR is 9.
- There are no outliers. The mean and median values are not much different.

4.1.3 University rating



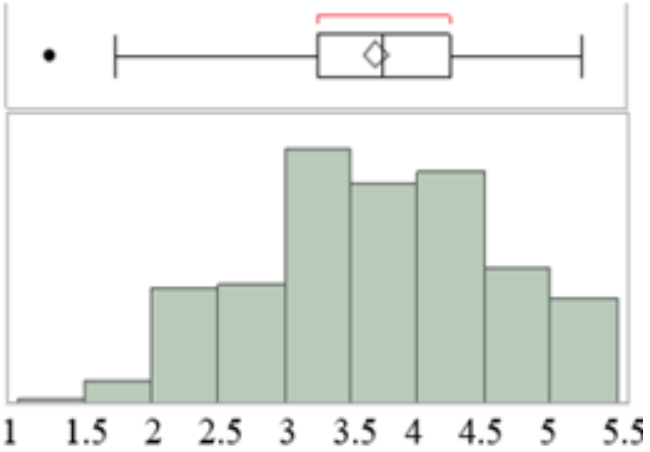
- The most common university rating is 3 (mode is 3), which approximately value of the mean (3.0875).
- The data quite concentrated on the left, but it is not terribly skewed. It can be considered nearly normal.

4.1.4. Statement of purpose



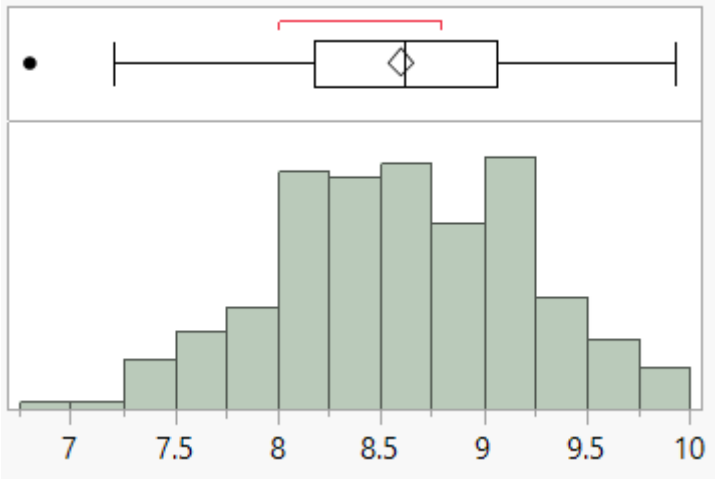
- Length of the left whisker is more than that of the right one, then the distribution is quite left skewed. However, there are no outliers.
- The average score of SOP is 3.4, which is relatively less than the median (3.5). Its standard deviation is around 1.

4.1.5. Letter of recommendation



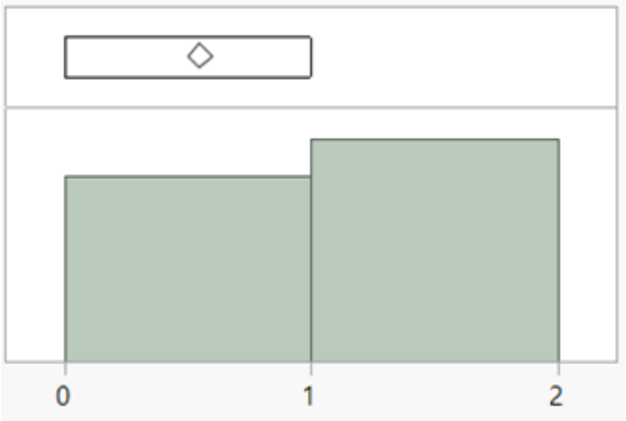
- There is one outlier to the left whose value is 1. Consider eliminating this value, the distribution of LOR can be approximately normal.
- The mean and median values are not much different, both are roughly 3.5. Its standard deviation is nearly 0.9.

4.1.6. CGPA score



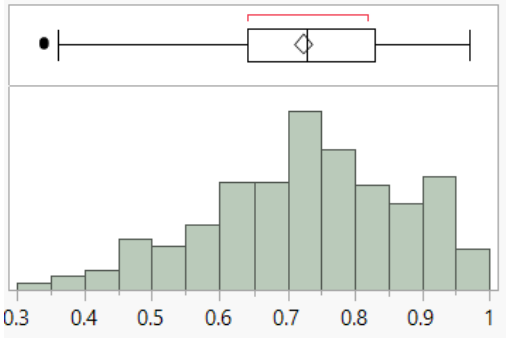
- CGPA scores are very close to a normal distribution, lengths of two whiskers are quite equal.
- The average CGPA score is 8.6, approximately the same value with mean score, and standard deviation is 0.59.
- There is one outlier whose value is 6.8. We can eliminate it for easily analysing as the graph is more normal.

4.1.7 Research



- The number of students who have a research experience is almost equal to the number of students who do not.

4.1.8 Chance of admit



- Most student estimated their chance of admission between 0.7 and 0.75.
- The distribution is moderately skewed to the left with a negative skew value -0.35. Indeed, the length of the left whisker is more than that of the right one. As it is quite left skewed, mean value is hence smaller than median value.
- There are two outliers whose values are 0.34.

4.2. Bivariate Analysis:

This analysis studies the relation between two variables and uses some charts like scatter plot, comparative box plot, etc … to present different statistics and their relationships including correlation, covariance.

Scatter plot: is a type of mathematical diagram using values of two variables. By constructing scatter plot, it is much easier to observe and identify the relationship between two numeric variables.

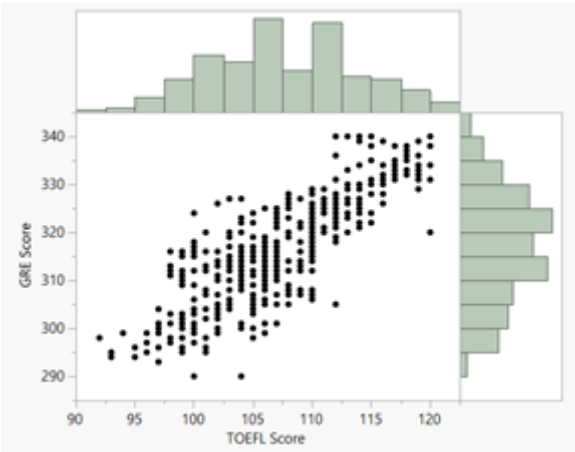
Correlation: Identification of correlation is common with scatter plots. It is used to measure the qualitative and direction of the linear relationship between two continuous variables.

Covariance: By calculating covariance, it is much straightforward to determine the joint variability of two random variables (whether the variables tend to move in tandem or show an inverse relationship).

In this part, we will discuss and analyse some bivariate relationships between variables.

4.2.1. GRE/TOEFL/CGPA Scores

GRE score and TOEFL score

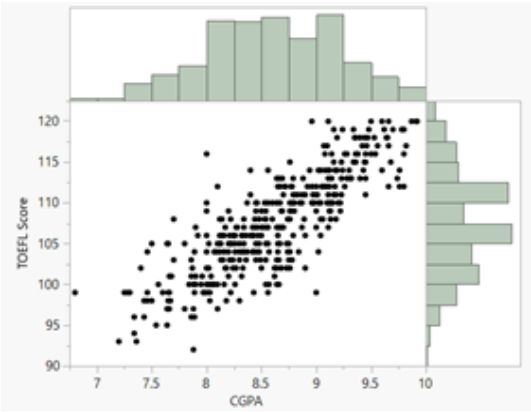


Summary Statistics

	Value	Lower 95%	Upper 95%	Signif. Prob
Correlation	0.835977	0.803813	0.863267	<.0001*
Covariance	58.21697			
Count	400			

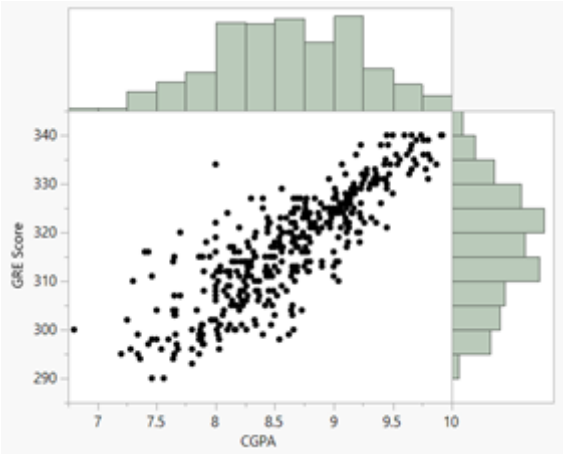
Variable	Mean	Std Dev
TOEFL Score	107.41	6.069514
GRE Score	316.8075	11.47365

TOEFL score and CGPA score



Summary Statistics				
	Value	Lower 95%	Upper 95%	Signif. Prob
Correlation	0.828417	0.794937	0.856868	<.0001*
Covariance	2.998337			
Count	400			
Variable	**Mean**	**Std Dev**		
CGPA	8.598925	0.596317		
TOEFL Score	107.41	6.069514		

GRE score and CGPA score



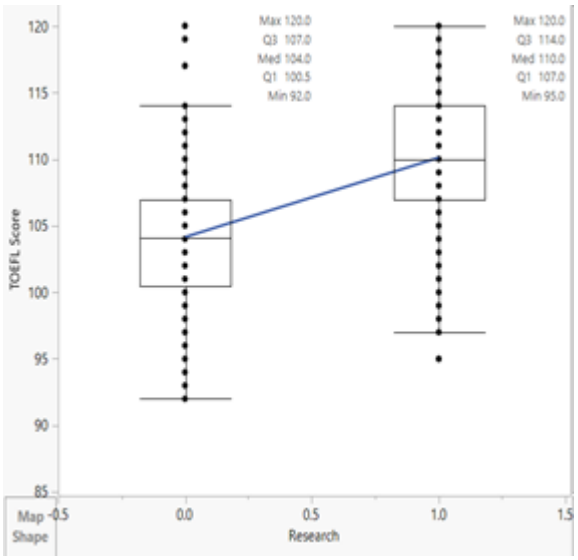
Summary Statistics				
	Value	Lower 95%	Upper 95%	Signif. Prob
Correlation	0.83306	0.800387	0.860799	<.0001*
Covariance	5.699742			
Count	400			
Variable	**Mean**	**Std Dev**		
CGPA	8.598925	0.596317		
GRE Score	316.8075	11.47365		

From the previous three charts we can say that: CGPA, GRE and TOEFL score are strongly positively correlated (r>0.8), which mean students who perform well in their TOEFL exams tend to also perform well in GRE exams, and they mostly have high CGPA (higher than 9).

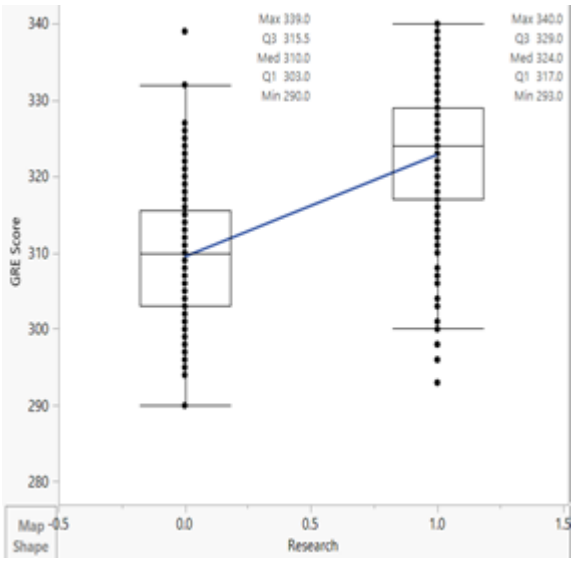
4.2.2. Analysing relation between number of research and score

Comparative box plot is a graphical display using a number of parallel box plots to compare the levels of one variable by some values of continuous variables (mean, median, max, min, range, etc.)

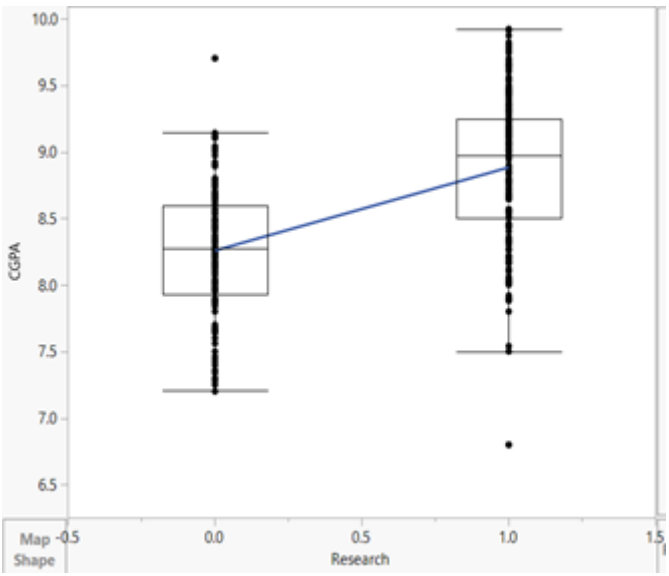
Research and TOEFL score



Research and GRE score



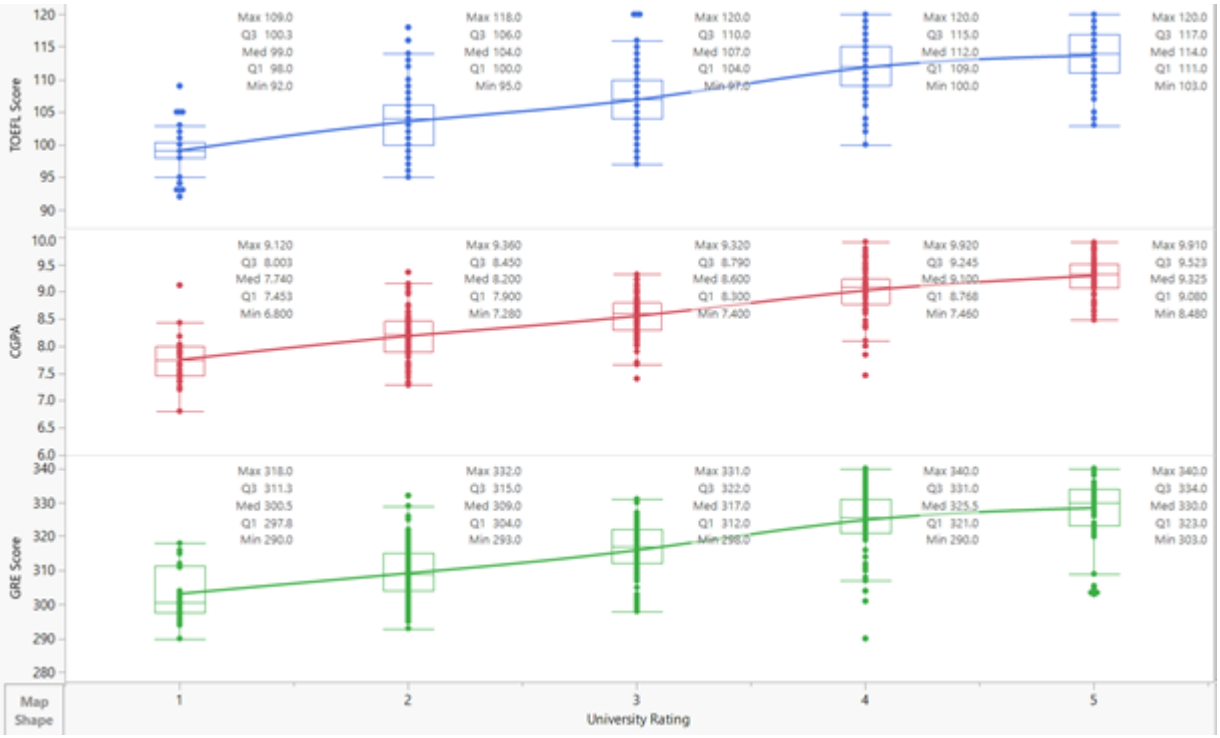
Research and CGPA score



We can see that students who have research experience, tend to perform better in both TOEFL and GRE exams, and they have higher CGPA compared to students who do not engage in research activities.

4.2.3. University ranking and students' scores?

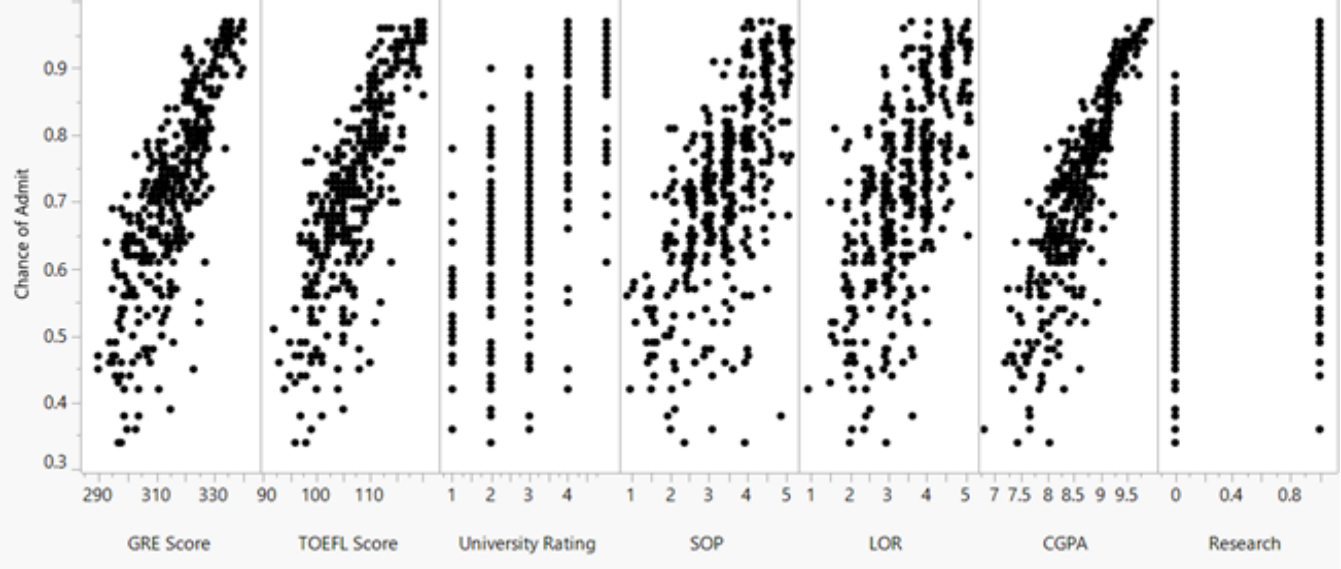
University rating and TOEFL/GRE/CGPA scores



The university ranking plays an important role in student's scores: students who go to higher ranking universities, have higher scores in the TOEFL and GRE exams, and they have higher CGPA.

4.2.4. Analysing chance of admission

Scatterplot matrix is a grid of scatter plot helping visualize the relationships between a pair of variables in just one graph.



From the above scatterplot matrix, we can conclude that: higher chance of admission is linked with research experience, university rating and it also depends greatly on other factors like students' scores, SOP and LOR as well.

5. Testing hypothesis

A statistical hypothesis test is a method of statistical inference used to facilitates the comparison of estimated values.

5.1. Test on two mean assuming equal variance

We always assume students with higher CGPA, studied in higher rank schools or did the research would have more opportunity to be admitted than ones that have never done one of them. The testing below will illustrate whether the conjecture above was true or not, using the sample of size 50 in two different populations in each test.

5.1.1. CGPA and rate of admit

Assuming the variable rate of admit of students whose CGPA ≥ 8.5 and CGPA < 8.5 have equal unknown variances. We would like to test the average rate of admit for students whose CGPA ≥ 8.5 (μ_1) is larger than ones whose CGPA < 8.5 (μ_2) using T-distribution test.

H_0: $\mu_1 = \mu_2$

H_1: $\mu_1 > \mu_2$

$CGPA \geq 8.5$

Summary Statistics	
Mean	0.8234
Std Dev	0.1068016
Std Err Mean	0.015104
Upper 95% Mean	0.8537527
Lower 95% Mean	0.7930473
N	50

$CGPA < 8.5$

Summary Statistics	
Mean	0.6016
Std Dev	0.1150574
Std Err Mean	0.0162716
Upper 95% Mean	0.6342989
Lower 95% Mean	0.5689011
N	50

Following the statistics summary, choosing significance value $a = 0.05$, we get ${s_p}^2 = 0.0123$, with $df = 98$ then:

$$t = 9.9904 > t_{98,0.05} = 1.661$$

Similarly, we get the $p - value = P(T \geq 9.9904) < P(\geq 1.661) = 0.05$. Hence, we have strong evidence to reject the Null hypothesis, which means the data support the alternative hypothesis: Rate of admit for students whose CGPA ≥ 8.5 is larger than ones whose CGPA < 8.5.

Also, we can construct 95% confidence interval of the difference in two means:

$$P(0.184 \leq \mu_1 - \mu_2 \leq 0.2586) = 95\%$$

5.1.2. School rank and rate of admit

Assuming the variable rate of admit for school whose rank is 3 and 4 have equal unknown variances. We would like to test the average rate of admit for students in school rank 3 (μ_1) is lower than ones in school rank 4 (μ_2) using T-distribution test.

H_0: $\mu_1 = \mu_2$

H_1: $\mu_1 < \mu_2$

Rank 3

Summary Statistics	
Mean	0.7046
Std Dev	0.1046122
Std Err Mean	0.0147944
Upper 95% Mean	0.7343305
Lower 95% Mean	0.6748695
N	50

Rank 4

Summary Statistics	
Mean	0.8256
Std Dev	0.1227268
Std Err Mean	0.0173562
Upper 95% Mean	0.8604786
Lower 95% Mean	0.7907214
N	50

Following the statistics summary, choosing significance value $a = 0.05$, we get ${s_p}^2 = 0.013$, with $df = 98$ then:

$$t = -5.307 < -t_{98,0.05} = -1.661$$

Similarly, we get the $p - value = P(T \leq -5.307) < P(\leq -1.661) = 0.05$. Hence, we have strong evidence to reject the Null hypothesis, which means the data support the alternative hypothesis: average rate of admit for students in rank 3 school is lower than that of students in rank 4 school.

Also, we can construct 95% confidence interval of the difference in two means:

$$P(-0.1589 \leq \mu_1 - \mu_2 \leq -0.0831) = 95\%$$

5.1.3. Research and rate of admit

Assuming the variable rate of admit of students who have one or zero research have equal unknown variances. We would like to test the average rate of admit for students having no research (μ_1) is lower than ones having one research (μ_2) using a T-distribution test.

H_0: $\mu_1 = \mu_2$

H_1: $\mu_1 < \mu_2$

Did the research

Summary Statistics	
Mean	0.778
Std Dev	0.1365762
Std Err Mean	0.0193148
Upper 95% Mean	0.8168145
Lower 95% Mean	0.7391855
N	50

Did not do the research

Summary Statistics	
Mean	0.6708
Std Dev	0.093587
Std Err Mean	0.0132352
Upper 95% Mean	0.6973971
Lower 95% Mean	0.6442029
N	50

Following the statistics summary, choosing significance value $a = 0.05$, we get ${s_p}^2 = 0.0137$, with $df = 98$ then:

$$T = -4.578 < -t_{98,0.05} = -1.661,$$

Similarly, we get the $p - value = P(T \leq -4.578) < P(\leq -1.661) = 0.05$. Hence, we have strong evidence to reject the Null hypothesis, which means the data support the alternative hypothesis: average rate of admit for students having zero research is lower than that of students having one.

Also, we can construct 95% confidence interval of the difference in two means:

$$P(0.068 \leq \mu_1 - \mu_2 \leq 0.146) = 95\%$$

5.2 Test on two variances between two variables

In this part, we would like to test the variances between the populations using the sample as the same as the ones we use for testing mean to analyse similarity in spread of distribution.

5.2.1. Chance of admit on CGPA

Now, we would like to test whether the variances of chance of admit between two population: students having $CGPA < 8.5$ (${\sigma_1}^2$) and $CGPA \geq 8.5$ (${\sigma_2}^2$) are equal or not using F-distribution.

$Ho: {\sigma_1}^2 = {\sigma_2}^2$

$Hi: : {\sigma_1}^2 \neq {\sigma_2}^2$

$CGPA \geq 8.5$

Summary Statistics	
Mean	0.8234
Std Dev	0.1068016
Std Err Mean	0.015104
Upper 95% Mean	0.8537527
Lower 95% Mean	0.7930473
N	50

$CGPA < 8.5$

Summary Statistics	
Mean	0.6016
Std Dev	0.1150574
Std Err Mean	0.0162716
Upper 95% Mean	0.6342989
Lower 95% Mean	0.5689011
N	50

Following the statistics summary, choosing significance value $a = 0.05$ then $\frac{a}{2} = 0.025$, $v_1 = v_2 = 49$:

$$f_{1-0.025,(49,49)} = 0.567 \leq f = \frac{{s_1}^2}{{s_2}^2} = 0.8616 < f_{0.025,(49,49)} = 1.7621$$

Similarly, we get the $p - value = 2 \cdot P(F \leq 0.8616) = 0.6$. Hence, we have strong evidence to conclude that it fails to reject Ho or say the statistics support Ho: the variance of chance of admit between the two populations of students having $CGPA < 8.5$ and $CGPA \geq 8.5$ are equal.

5.2.2. Chance of admit on School rank

Now, we would like to test whether the variances of chance of admit between two population: students from schools rank 3 $(\sigma_1{}^2)$ and rank 4 $(\sigma_2{}^2)$ are equal or not using F-distribution.

$Ho: \sigma_1{}^2 = \sigma_2{}^2$

$Hi: : \sigma_1{}^2 \neq \sigma_2{}^2$

Rank 3

Summary Statistics	
Mean	0.7046
Std Dev	0.1046122
Std Err Mean	0.0147944
Upper 95% Mean	0.7343305
Lower 95% Mean	0.6748695
N	50

Rank 4

Summary Statistics	
Mean	0.8256
Std Dev	0.1227268
Std Err Mean	0.0173562
Upper 95% Mean	0.8604786
Lower 95% Mean	0.7907214
N	50

Following the statistics summary, choosing significance value $a = 0.05$ then $\frac{a}{2} = 0.025$, $v_1 = v_2 = 49$:

$$f_{1-0.025,(49,49)} = 0.567 \leq f = \frac{s_1{}^2}{s_2{}^2} = 0.72658 < f_{0.025,(49,49)} = 1.7621$$

Similarly, we get the $p - value = 2 \cdot P(F \leq 0.72658) = 0.26$. Hence, we have strong evidence to conclude that it fails to reject Ho or say the statistics support Ho: the variance of chance of admit between the two populations of students in school rank 3 and 4 are equal.

5.2.3. Chance of admit on Research

Now, we would like to test whether the variances of chance of admit between two population: students having zero $(\sigma_1{}^2)$ or one research $(\sigma_2{}^2)$ are equal or not using F-distribution.

$$Ho: \sigma_1{}^2 = \sigma_2{}^2$$

$$Hi: : \sigma_1{}^2 \neq \sigma_2{}^2$$

Did the research

Summary Statistics	
Mean	0.778
Std Dev	0.1365762
Std Err Mean	0.0193148
Upper 95% Mean	0.8168145
Lower 95% Mean	0.7391855
N	50

Did not do the research

Summary Statistics	
Mean	0.6708
Std Dev	0.093587
Std Err Mean	0.0132352
Upper 95% Mean	0.6973971
Lower 95% Mean	0.6442029
N	50

Following the statistics summary, choosing significance value $a = 0.05$ then $\frac{a}{2} = 0.025$, $v_1 = v_2 = 49$:

$$f = \frac{{s_1}^2}{{s_2}^2} = 2.1297 > f_{0.025,(49,49)} = 1.7621$$

Similarly, we get the $p - value = 2 \cdot P(F \geq 2.1297) = 0.01$. Hence, we have strong evidence to reject the Null hypothesis, which means the data support the alternative hypothesis: the variances of chance of admit between two populations: students having zero or one research are not equal.

6. Conclusion

In short, through many analyses from description to inference, we can conclude that the six mentioned factors are strongly positively correlated to the chance of admission in a university. Nonetheless, several factors which we have not considered in this paper also play an integral part in chance of admission including working experience, accomplishment, extra activities, personality, etc.

Even though the sample mean and sample variance in our report can be used for assuming population mean and variance respectively, the idea should not be generalised to other ranges affecting chance of admission in other universities because we take the statistics at one certain university: UCLA.

However, through descriptive and graphical analysis, we can conclude sample mean and variance is a point estimator for population mean and variance. In addition, in the hypothesis test, we only test the difference between two sample means when only assuming they have equal variances, which may not hold true. However, using f distribution can somewhat accept the hypothesis that the two population variances are equal (in case of university rank and CGPA) except case for research on chance of admit relation.

References

Acharya, M. S., Armaan, A., & Antony, A. S. (2018). *A Comparison of Regression Models for Prediction of Graduate Admissions, IEEE International Conference on Computational Intelligence in Data Science 2019.* Retrieved 01 04, 2021, from https://www.kaggle.com/mohansacharya/graduate-admissions

IBM Cloud Education. (2020, 8 25). Exploratory Data Analysis. Retrieved 01 04, 2020, from https://www.ibm.com/cloud/learn/exploratory-data-analysis

Kuther, T. (2019, 2 24). What Do Grad Schools Look for in Students? Retrieved 1 4, 2020, from https://www.thoughtco.com/what-do-grad-schools-look-for-1685141#:~:text=Criteria%20Weighed%20by%20Admissions%20Committees&text=Undergraduate%20GPA%20(especially%20the%20last,Personal%20statement%2Fessay

Appendix

Serial No.	GRE Score	TOEFL Score	University Rating	SOP	LOR	CGPA	Research	Chance of Admit
4	322	110	3	3.5	2.5	8.67	1	0.8
19	318	110	3	4	3	8.8	0	0.63
24	334	119	5	5	4.5	9.7	1	0.95
28	298	98	2	1.5	2.5	7.5	1	0.44
31	300	97	2	3	3	8.1	1	0.65
32	327	103	3	4	4	8.3	1	0.74
35	331	112	5	4	5	9.8	1	0.94
37	299	106	2	4	4	8.4	0	0.64
43	313	107	2	2.5	2	8.5	1	0.53
47	329	114	5	4	5	9.3	1	0.86
48	339	119	5	4.5	4	9.7	0	0.89
54	324	112	4	4	2.5	8.1	1	0.72
59	300	99	1	3	2	6.8	1	0.36
61	309	100	2	3	3	8.1	0	0.48
62	307	101	3	4	3	8.2	0	0.47
68	316	107	2	3.5	3.5	8.64	1	0.57
69	318	109	3	3.5	4	9.22	1	0.68
70	328	115	4	4.5	4	9.16	1	0.78
71	332	118	5	5	5	9.64	1	0.94
74	314	108	4	4.5	4	9.04	1	0.84
75	314	106	3	3	5	8.9	0	0.74
79	296	95	2	3	2	7.54	1	0.44
83	320	110	5	5	4.5	9.22	1	0.92
84	322	115	5	4	4.5	9.36	1	0.92
97	306	100	2	3	3	8	0	0.48
98	331	120	3	4	4	8.96	1	0.86
103	314	106	2	4	3.5	8.25	0	0.62
116	310	106	4	4.5	4.5	9.04	1	0.66
126	300	100	3	2	3	8.66	1	0.64
131	339	114	5	4	4.5	9.76	1	0.96
132	303	105	5	5	4.5	8.65	0	0.77
139	326	116	2	4.5	3	9.08	1	0.8
148	326	114	3	3	3	9.11	1	0.83
154	324	105	3	3	4	8.75	0	0.79
155	326	108	3	3	3.5	8.89	0	0.8
160	297	100	1	1.5	2	7.9	0	0.52
162	298	99	1	1.5	3	7.46	0	0.53
165	329	111	4	4.5	4	9.01	1	0.81
167	302	102	3	3.5	5	8.33	0	0.65
171	312	101	2	2.5	3.5	8.04	1	0.68
175	321	111	4	4	4	8.97	1	0.87
184	314	110	3	4	4	8.8	0	0.75
185	316	106	2	2.5	4	8.32	0	0.72
190	324	112	5	5	5	9.08	1	0.88

192	323	110	5	4	5	8.98	1	0.87
195	316	109	3	3.5	3	8.76	0	0.77
200	313	107	3	4	4.5	8.69	0	0.72
203	340	120	5	4.5	4.5	9.91	1	0.97
206	295	99	2	2.5	3	7.65	0	0.57
211	325	108	4	4.5	4	9.06	1	0.79
215	331	117	4	4.5	5	9.42	1	0.94
223	324	113	4	4.5	4	8.79	0	0.76
227	306	110	2	3.5	4	8.45	0	0.63
231	313	104	3	4	4.5	8.65	0	0.73
235	330	113	5	5	4	9.31	1	0.91
236	326	111	5	4.5	4	9.23	1	0.88
238	329	114	5	4.5	5	9.19	1	0.86
241	296	101	1	2.5	3	7.68	0	0.6
242	317	103	2	2.5	2	8.15	0	0.65
243	324	115	3	3.5	3	8.76	1	0.7
246	328	110	4	4	2.5	9.02	1	0.81
248	311	104	2	2.5	3.5	8.48	0	0.71
262	312	104	3	3.5	4	8.09	0	0.71
264	324	111	3	2.5	1.5	8.79	1	0.7
268	314	107	3	3	3.5	8.17	1	0.73
275	315	100	1	2	2.5	7.95	0	0.58
278	320	101	2	2.5	3	8.62	0	0.7
282	317	110	3	4	4.5	9.11	1	0.8
285	340	112	4	5	4.5	9.66	1	0.94
291	307	105	2	2.5	3	7.65	0	0.58
294	312	98	1	3.5	3	8.18	1	0.64
299	330	114	3	4.5	4.5	9.24	1	0.9
301	309	106	2	2.5	2.5	8	0	0.62
303	322	105	2	3	3	8.45	1	0.65
305	313	106	2	2.5	2	8.43	0	0.62
308	325	112	4	4	4	9	1	0.8
320	327	113	4	3.5	3	8.69	1	0.8
321	317	106	3	4	3.5	8.5	1	0.75
322	323	104	3	4	4	8.44	1	0.73
325	315	104	3	3	2.5	8.33	0	0.67
338	332	118	5	5	5	9.47	1	0.94
340	324	107	5	3.5	4	8.66	1	0.81
342	326	110	3	3.5	3.5	8.76	1	0.79
348	299	94	1	1	1	7.34	0	0.42
350	313	101	3	2.5	3	8.04	0	0.62
351	318	107	3	3	3.5	8.27	1	0.74
353	303	100	2	3	3.5	8.06	1	0.64
354	300	102	3	3.5	2.5	8.17	0	0.63
372	324	110	3	3.5	3	9.22	1	0.89
375	315	105	2	2	2.5	7.65	0	0.39
377	297	96	2	2.5	2	7.43	0	0.34
379	303	98	1	2	2.5	7.65	0	0.56

382	319	105	3	3	3.5	8.67	1	0.73
384	300	100	3	3	3.5	8.26	0	0.62
388	307	105	2	2	3.5	8.1	0	0.53
390	320	108	3	3.5	4	8.44	1	0.76
395	329	111	4	4.5	4	9.23	1	0.89
396	324	110	3	3.5	3.5	9.04	1	0.82
397	325	107	3	3	3.5	9.11	1	0.84
398	330	116	4	5	4.5	9.45	1	0.91