

# College Score Card Ranking

## Introduction

College Score Card Ranking is a College-Recommendation Program by Python

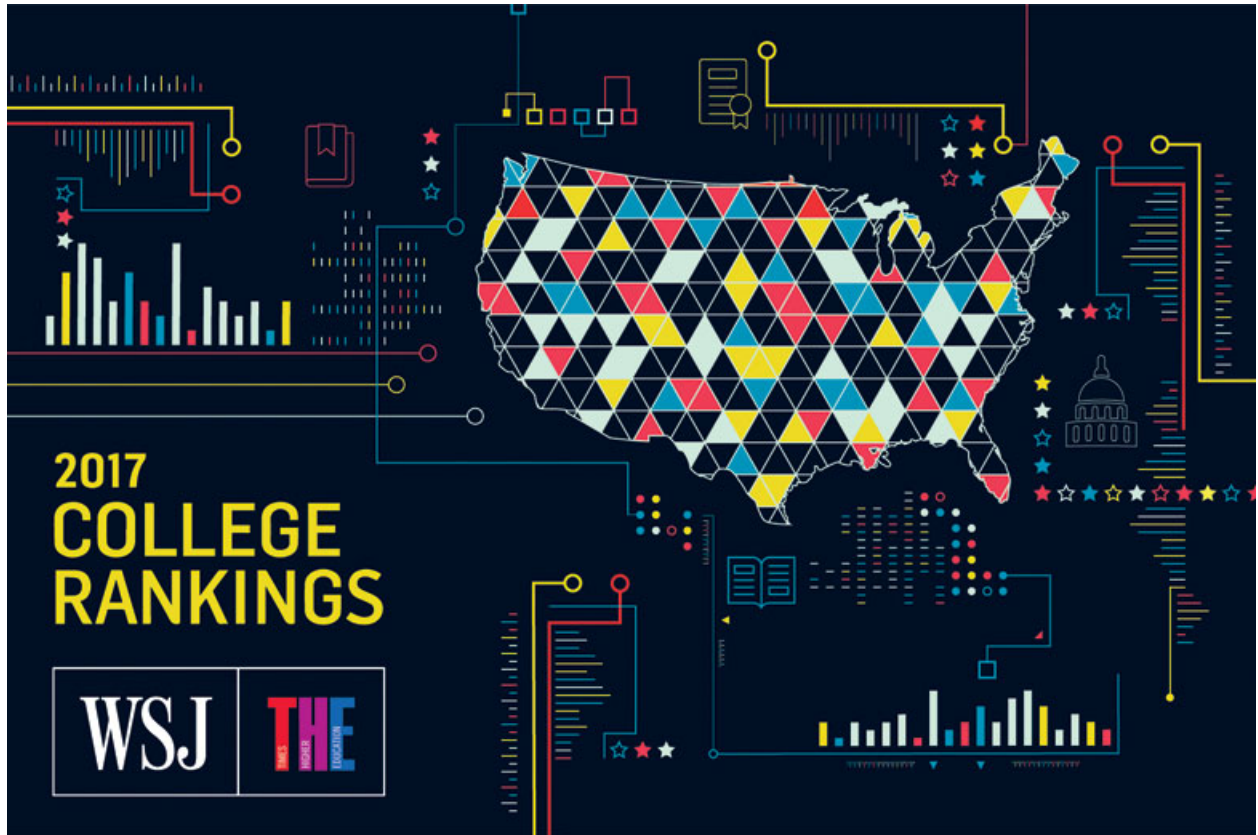


Figure 1:

## Our Mission

Nowadays, getting into an ideal college is an important step for students to receive better education as well as their future career development. However, choosing an appropriate college can be challenging. Our research purpose is to assist students to find their ideal colleges by providing 5 top college information with basic information

Students with different backgrounds have different needs and concerns about college requirements. We categorize three major groups of prospective students: International, local and transfer students, and we will evaluate different factors based on each group's needs.

## Summary Of Research Questions:

- How should we come out with different solutions that can help different types of students (Ex: international students, local students, transfer students) to find the colleges that suit them most by applying the dataset?

- How can the different factors (like academic rank, tuition fee) be used together within different influence score to come out a total rank of a school?
- We can also predict a college's future acceptance rate to predict collecting the previous year's data (from 1996 - 2014) and find functions to describe the relationships between those data. Is there any way to analyze the trend of acceptance rate of a college so that the students have a better idea of which colleges to go?

## Dataset

We collected our dataset from ***data.gov***

Dataset Download Here

## Methodology

### User Inputs

We designed our input panel into two parts: **Recommendation Panel & Acceptance Rate Panel**

#### 1. College Recommendation Panel

- Describe your student status: International/Local/Transfer?
  - This is a text response, the users will enter their status by typing a ?string? response
- Enter your SAT Score:
  - This is a Numerical response, the users are required to type in SAT score they've taken
- Enter your expected Maximum Tuition(per quarter)?
  - This is a Numerical response, the users are required to type in the Maximum tuition per quarter they expect to pay

### Influence Score

Influence score is the **key** for our recommendation-program.

**influence score for each filtered college information will be calculated based on different factors of interest, and the calculation is different for International, local and transfer students.**

**Groups of interest: (\*Note: influence score for each college is a single value. It starts from 0; it evaluates and sums up the weight of each factor)**

### Methodology:

- International Students:
  - Tuition: 15%
  - SAT: 40%
  - Ranking: 20%
  - Acceptance Rate: 35%

b. Local Students:

- Tuition: 20%
- Debt: 10%
- Gender Ratio: 10%
- SAT: 25%
- Acceptance Rate: 35%

c. Transfer Students:

- Acceptance Rate: 40%
- Tuition: 30%
- SAT: 10%
- Ranking: 20%
- Sum up the influence score for each college by adding up each factor's weight
- Select the top 5 influence scores and present the users with the corresponding college information: name, location, tuition, ranking, SAT average, acceptance rate, gender ratio.
- Provide the top college suggestion's acceptance rate trending from 1996 - 2014, and see if the trend is going up or down.

## Project Challenges

Let's take a glance of our original data:

UNITID	OPEID	OPEID6	INSTNM	CITY	STABBR	ZIP	ACCREDITAGE	INSTURL	NPCURL	SCH_DEG	HCM2	MAIN	NUMBRANC	PREDDEG	HIGHDEG	CONTROL	ST_FIPS	R
100654	100200	1002	Alabama A & Normal	AL		35762	Southern Asi	www.aamu.edu/gallileo	aamu	NULL		0	1	1	3	4	1	1
100663	105200	1052	University of Birmingham	AL		35294-0110	Southern Asi	www.uab.edu	www.college	NULL		0	1	1	3	4	1	1
100690	2503400	25034	Amridge Univ	Montgomery	AL	36117-3553	Southern Asi	www.amridg	www2.amrid	NULL		0	1	1	3	4	2	1
100706	105500	1055	University of Huntsville	AL		35899	Southern Asi	www.uah.edu/finalid	uah	ec	NULL	0	1	1	3	4	1	1
100724	100500	1005	Alabama State	Montgomery	AL	36104-0271	Southern Asi	www.alasu.edu	www.alasu	ec	NULL	0	1	1	3	4	1	1
100751	105100	1051	The University of Tuscaloosa	AL		35487-0166	Southern Asi	www.ua.edu/financialaid	ua	ec	NULL	0	1	1	3	4	1	1
100760	100700	1007	Central Alabama Alexander Cr	AL		35010	Southern Asi	www.cacc.edu	www.cacc	ec	NULL	0	1	1	2	2	1	1
100812	100800	1008	Athens State	Athens	AL	35611	Southern Asi	www.athens.edu	https://24.at	NULL		0	1	1	3	3	1	1
100830	831000	8310	Auburn Univ	Montgomery	AL	36117-3596	Southern Asi	www.aum.edu	www.aum	ec	NULL	0	1	1	3	4	1	1
100858	100900	1009	Auburn Univ	Auburn	AL	36849	Southern Asi	www.auburn.edu	www.auburn	ec	NULL	0	1	1	3	4	1	1
100937	101200	1012	Birmingham	Birmingham	AL	35254	Southern Asi	www.bsc.edu	www.bsc	ec	NULL	0	1	1	3	3	2	1
101028	1218200	12182	Chattahoochee	Phenix City	AL	36869	Southern Asi	www.cv.edu	https://exter	NULL		0	1	1	2	2	1	1
101073	1055400	10554	Concordia College	Selma	AL	36701	Southern Asi	www.ccal.edu	www.ccal	ec	NULL	0	1	1	3	3	2	1
101116	1303906	13039	South Univ	Montgomery	AL	36116	Southern Asi	southuniv	ers	tcc.noellevitz	NULL	0	0	16	2	4	3	1
101143	101500	1015	Enterprise State	Enterprise	AL	36330-1300	Southern Asi	www.escc.edu	www.escc	ec	NULL	0	1	1	2	2	1	1
101161	106000	1060	James H Faulkner	Bay Minette	AL	36507-2698	Southern Asi	www.faulkner.edu	www.faulkner	ec	NULL	0	1	1	2	2	1	1
101189	100300	1003	Faulkner Univ	Montgomery	AL	36109-3390	Southern Asi	www.faulkner.edu	www.faulkner	ec	NULL	0	1	1	3	4	2	1
101240	101700	1017	Gadsden State	Gadsden	AL	35903	Southern Asi	www.gadsden.edu	www.gadsden	ec	NULL	0	1	1	2	2	1	1
101277	4187200	41872	New Beginnings	Albertville	AL	35951	National Acc	www.nbccos.edu	www.nbccos	ec	NULL	0	1	1	1	1	3	1
101286	101800	1018	George C Wallace	Dothan	AL	36303-9234	Southern Asi	www.wallace.edu	www.wallace	ec	NULL	0	1	1	2	2	1	1
101295	787100	7871	George C Wallace	Hanceville	AL	35077-2000	Southern Asi	www.wallace.edu	www.wallace	ec	NULL	0	1	1	2	2	1	1
101301	569900	5699	George C Wallace	Selma	AL	36703-2808	Southern Asi	www.wccs.edu	www.wccs	ec	NULL	0	1	1	2	2	1	1
101365	962107	9621	Herzing Univ	Birmingham	AL	35209	North Centr	www.herzing.edu	www.herzing	ec	NULL	0	0	11	1	4	3	1
101435	101900	1019	Huntingdon College	Montgomery	AL	36106-2148	Southern Asi	www.huntingdon.edu	www.hawkins	ec	NULL	0	1	1	3	3	2	1
101453	2199700	21997	Heritage Christian	Florence	AL	35630-9977	Association f	www.hcu.edu	162.243.225	NULL		0	1	1	3	4	2	1
101462	526000	5260	J F Drake State	Huntsville	AL	35811	Southern Asi	www.drakes.edu	www.drakes	ec	NULL	0	1	1	2	2	1	1
101480	102000	1020	Jacksonville State	Jacksonville	AL	36265	Southern Asi	www.jsu.edu	www.jsu	ec	NULL	0	1	1	3	4	1	1
101499	102100	1021	Jefferson Davis	Brewton	AL	36426	Southern Asi	www.jdccc.edu	www.jdccc	ec	NULL	0	1	1	2	2	1	1
101505	102200	1022	Jefferson State	Birmingham	AL	35215-3098	Southern Asi	www.jeffstat.edu	www.jeffstat	ec	NULL	0	1	1	2	2	1	1
101514	101300	1013	John C Calhoun	Tanner	AL	35671	Southern Asi	www.calhoun.edu	https://calhoun	ec	NULL	0	1	1	2	2	1	1
101541	102300	1023	Judson College	Marion	AL	36756	Southern Asi	www.judson.edu	www.judson	ec	NULL	0	1	1	3	3	2	1
101550	102000	1020	Judson State	Birmingham	AL	35215-3098	Southern Asi	www.judson.edu	www.judson	ec	NULL	0	1	1	3	3	2	1

Figure 2:

Since the data are extracted directly from the system, we can see the column names are unorganized, and there are a large amount of **NULLs**, which made us hard to filter and re-organize the dataset

## Panel Instruction

Please View Instruction - Here

## **Results Present**

- College Recommendation
- College Acceptance Rate Trend (2004 - 2013)