

College Score Card Ranking

Introduction

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

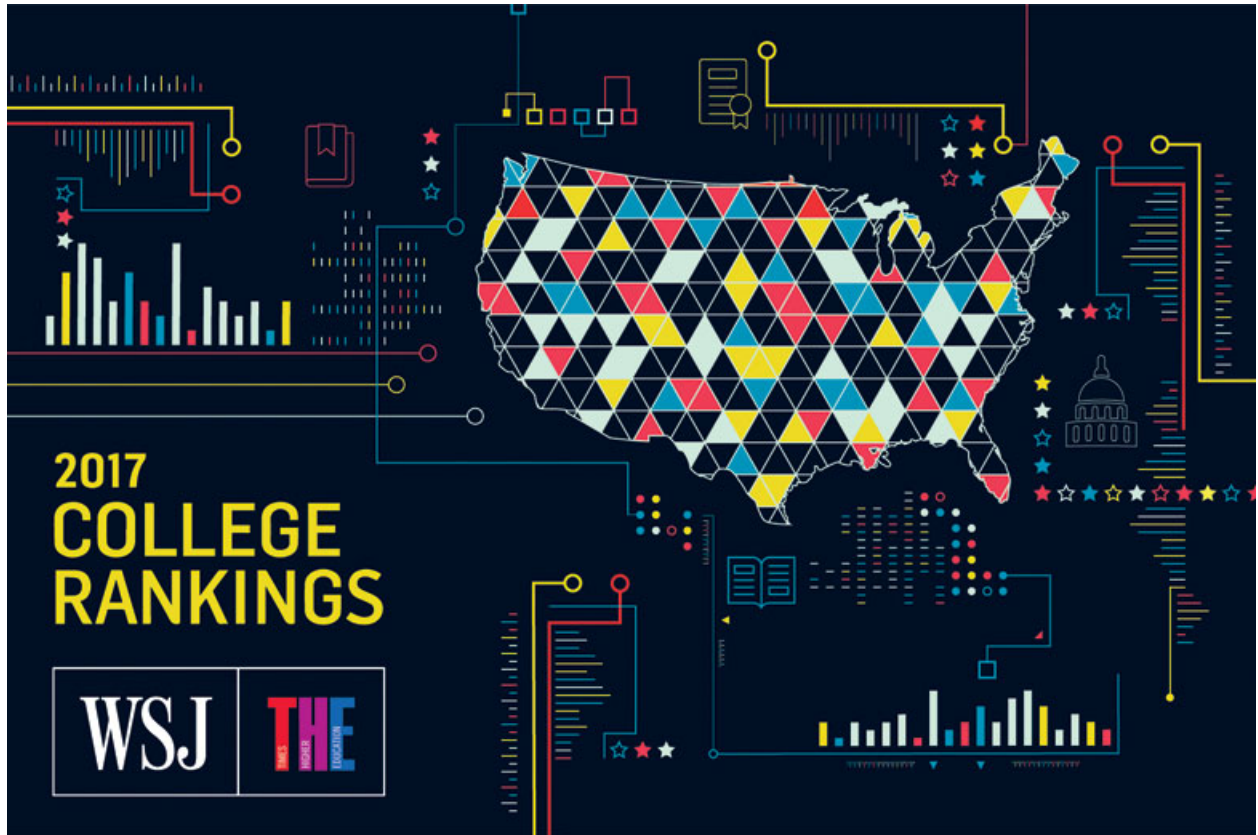


Figure 1:

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?
- Enter your SAT Score:
- Enter your expected Maximum Tuition(per quarter)?

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%
- 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 As	www.aamu.edu/gallileo.aamu	NULL			0	1	1	3	4	1	1
100663	105200	1052	University of Birmingham	AL		35294-0110	Southern As	www.uab.edu/www.college	NULL			0	1	1	3	4	1	1
100690	2503400	25034	Amridge Univ Montgomery	AL		36117-3553	Southern As	www.amridg	www2.amridg	NULL		0	1	1	3	4	2	1
100706	105500	1055	University of Huntsville	AL		35899	Southern As	www.uah.edu/finaid.uah.edu	NULL			0	1	1	3	4	1	1
100724	100500	1005	Alabama Sta Montgomery	AL		36104-0271	Southern As	www.alasu.edu/www.alasu.edu	NULL			0	1	1	3	4	1	1
100751	105100	1051	The Universi Tuscaloosa	AL		35487-0166	Southern As	www.ua.edu/financialaid.us	NULL			0	1	1	3	4	1	1
100760	100700	1007	Central Alabi Alexander Cr	AL		35010	Southern As	www.cacc.edu/www.cacc.edu	NULL			0	1	1	2	2	1	1
100812	100800	1008	Athens State Athens	AL		35611	Southern As	www.athens.edu/https://24.at	NULL			0	1	1	3	3	1	1
100830	831000	8310	Auburn Univ Montgomery	AL		36117-3596	Southern As	www.aum.edu/www.aum.edu	NULL			0	1	1	3	4	1	1
100858	100900	1009	Auburn Univ Auburn	AL		36849	Southern As	www.auburn.edu/www.auburn.edu	NULL			0	1	1	3	4	1	1
100937	101200	1012	Birmingham Birmingham	AL		35254	Southern As	www.bsc.edu/www.bsc.edu	NULL			0	1	1	3	3	2	1
101028	1218200	12182	Chattahooch Phenix City	AL		36869	Southern As	www.cv.edu/https://exter	NULL			0	1	1	2	2	1	1
101073	1055400	10554	Concordia Cc Selma	AL		36701	Southern As	www.ccal.edu/www.ccal.edu	NULL			0	1	1	3	3	2	1
101116	1303906	13039	South Univer Montgomery	AL		36116	Southern As	southunivers	tcc.noellewitz	NULL		0	0	16	2	4	3	1
101143	101500	1015	Enterprise St Enterprise	AL		36330-1300	Southern As	www.escc.edu/www.escc.edu	NULL			0	1	1	2	2	1	1
101161	106000	1060	James H Faul Bay Minette	AL		36507-2698	Southern As	www.faulkne	www.faulkne	NULL		0	1	1	2	2	1	1
101189	100300	1003	Faulkner Univ Montgomery	AL		36109-3390	Southern As	www.faulkne	www.faulkne	NULL		0	1	1	3	4	2	1
101240	101700	1017	Gadsden Sta Gadsden	AL		35903	Southern As	www.gadsde	www.gadsde	NULL		0	1	1	2	2	1	1
101277	4187200	41872	New Beginn Albetville	AL		35951	National Acc	www.nbccos	www.nbccos	NULL		0	1	1	1	1	3	1
101286	101800	1018	George C Wz Dothan	AL		36303-9234	Southern As	www.wallace	www.wallace	NULL		0	1	1	2	2	1	1
101295	787100	7871	George C Wz Hanceville	AL		35077-2000	Southern As	www.wallace	www.wallace	NULL		0	1	1	2	2	1	1
101301	569900	5699	George C Wz Selma	AL		36703-2808	Southern As	www.wccs.edu/wccs.edu/ho	NULL			0	1	1	2	2	1	1
101365	962107	9621	Herzing Univ Birmingham	AL		35209	North Centr	www.herzing	www.herzing	NULL		0	0	11	1	4	3	1
101435	101900	1019	Huntingdon I Montgomery	AL		36106-2148	Southern As	www.hunting	hawk.hunting	NULL		0	1	1	3	3	2	1
101453	2199700	21997	Heritage Chr 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 Sta Huntsville	AL		35811	Southern As	www.drakes	www.drakes	NULL		0	1	1	2	2	1	1
101480	102000	1020	Jacksonville I Jacksonville	AL		36265	Southern As	www.jsu.edu/www.jsu.edu	NULL			0	1	1	3	4	1	1
101499	102100	1021	Jefferson Sta Brewton	AL		36426	Southern As	www.jdccc.edu/www.jdccc.edu	NULL			0	1	1	2	2	1	1
101505	102200	1022	Jefferson Sta Birmingham	AL		35215-3098	Southern As	www.jeffstat	www.jeffstat	NULL		0	1	1	2	2	1	1
101514	101300	1013	John C Calho Tanner	AL		35671	Southern As	www.calho	https://calhc	NULL		0	1	1	2	2	1	1
101541	102300	1023	Judson Colleg Marion	AL		36756	Southern As	www.judson	www.judson	NULL		0	1	1	3	3	2	1
101550	102000	1020	Judson State Birmingham	AL		35211-1717	Southern As	www.judson	www.judson	NULL		0	1	1	3	3	1	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

a) International

b) Local

c) Transfer:

? (Please Type a, b, c):

b

please input your sat score:2000

please input your maximum tuition you can accept:8000

1. Brigham Young University-Idaho

score: 0.780645154651

city:Rexburg state:ID rank:314 tuition:3850.0 sat:1036.0 AC:0.996263079223 debt:5750.0 Mal

2. Southern University at New Orleans

score: 0.660160232884

city:New Orleans state:LA rank:1428 tuition:4911.0 sat:808.0 AC:0.488803582853 debt:14250.0

3. Alcorn State University

score: 0.654914321391

city:Alcorn State state:MS rank:1037 tuition:6108.0 sat:851.0 AC:0.829139072848 debt:16000.0

College Acceptance Rate Trend (2004 - 2013)

Recommend College OR Check Accept Rate? Enter R or A or Exit: A

Enter a University Name(Full Name):Cornell University

- Cornell University

Recommend College OR Check Accept Rate? Enter R or A or Exit: A

Enter a University Name(Full Name): New York University

- New York University

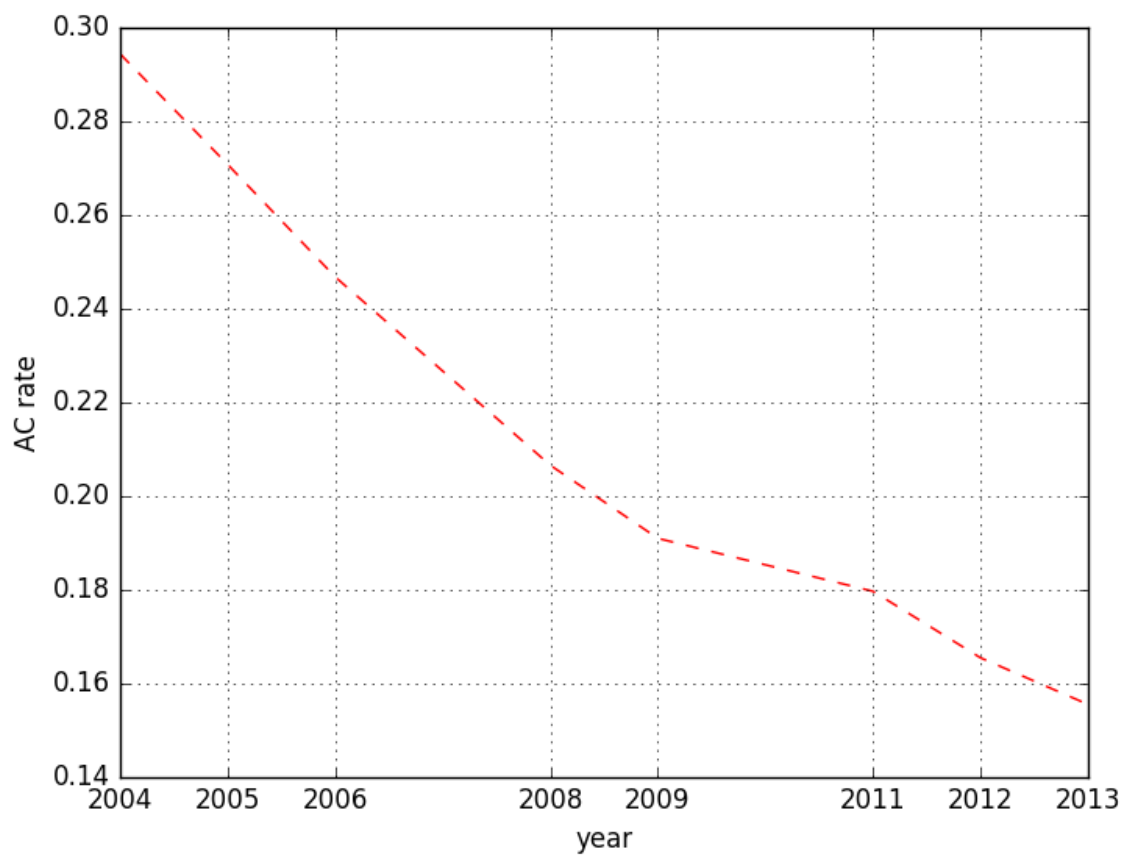


Figure 3:

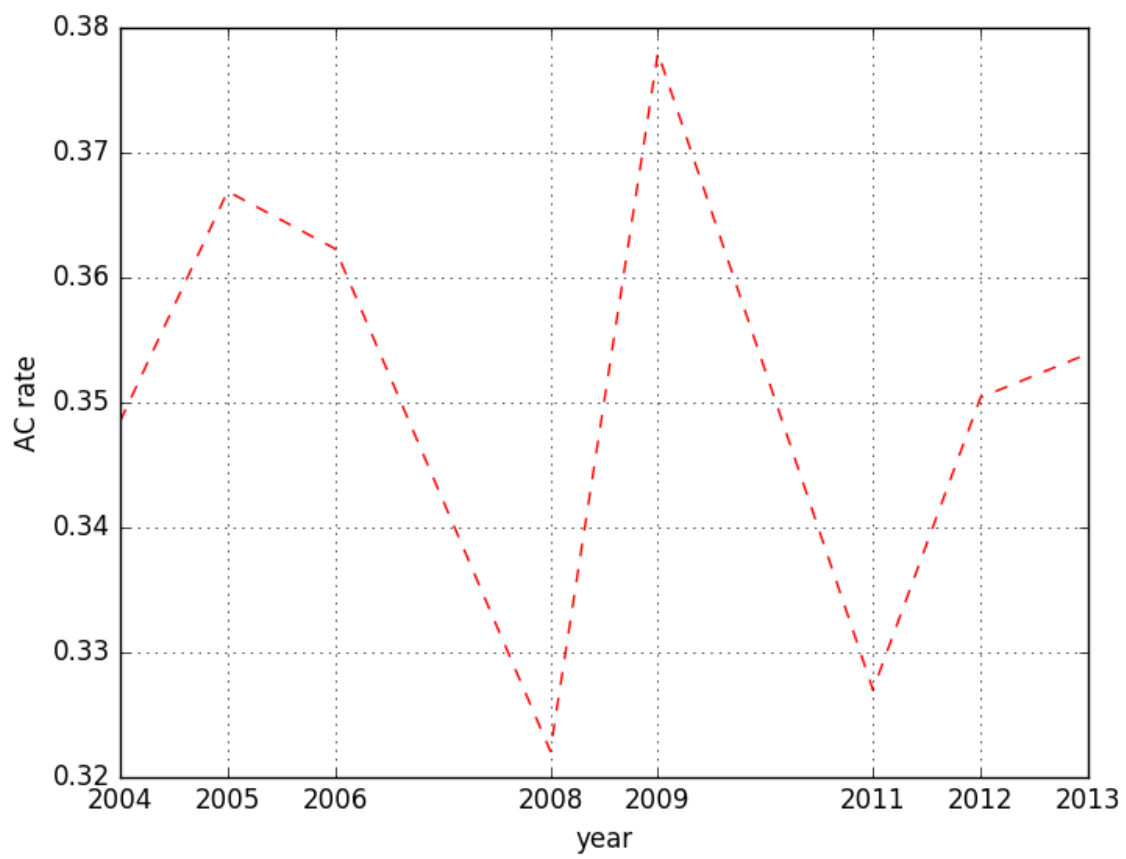


Figure 4: