

```
In [1]: from IPython.core.interactiveshell import InteractiveShell
InteractiveShell.ast_node_interactivity = "last" #"all"
import pandas as pd
import numpy as np
import requests
from bs4 import BeautifulSoup
```

```
In [2]: request = requests.get("https://www.einstein.yu.edu/education/md-program/
admissions/match-results-2017.aspx")
```

```
In [3]: pd.set_option('max_rows', 300)

raw_table = BeautifulSoup(request.content, 'lxml')
raw_table = raw_table.find_all('table')[0]
raw_table = pd.read_html(str(raw_table))[0]
# raw_table
```

```

In [4]: table = np.array(raw_table)
table = np.insert(table,0,'Anesthesiology') # also flattens
table = np.insert(table,0,'Anesthesiology') # YES, twice.
table = pd.DataFrame(table)

## Split table at each NaN
tables = np.split(table, np.where([pd.isnull(table[0])])[True])

## Remove NaN entries
tables = [table[~pd.isnull(table[0])] for table in tables if not isinstance(table, np.ndarray)]

## Remove empty DataFrames
tables = [table for table in tables if not table.empty]

for table in tables:
    table['Specialization'] = table[0].iloc[0]

tables = [table[2:] for table in tables]

result = pd.concat(tables)
result = result.rename({0: 'Institution'}, axis='columns')
result = result.reindex(columns=['Specialization','Institution'])
result = result.sort_values(by=['Specialization','Institution'])
result = result.reset_index(drop=True)
result

```

Out[4]:

	Specialization	Institution
0	Anesthesiology	Brigham & Womens Hosp-MA
1	Anesthesiology	Montefiore Med Ctr/Einstein-NY
2	Anesthesiology	NYP Hosp-Columbia Univ Med Ctr-NY
3	Anesthesiology	NYP Hosp-Columbia Univ Med Ctr-NY
4	Anesthesiology	NYU School Of Medicine
5	Anesthesiology	NYU School Of Medicine
6	Anesthesiology	UC San Francisco-CA
7	Anesthesiology	Vanderbilt Univ Med Ctr-TN
8	Child Neurology	Montefiore Med Ctr/Einstein-NY
9	Dermatology	Montefiore Med Ctr/Einstein-NY
10	Dermatology	Montefiore Med Ctr/Einstein-NY
11	Dermatology	Montefiore Med Ctr/Einstein-NY
12	Emergency Medicine	Boston Univ Med Ctr-MA
13	Emergency Medicine	Cook County-Stroger Hospital-IL
14	Emergency Medicine	Hofstra Northwell SOM-NY
15	Emergency Medicine	Hofstra Northwell SOM-NY
16	Emergency Medicine	Icahn SOM at Mount Sinai-NY
17	Emergency Medicine	Icahn SOM at Mount Sinai-NY
18	Emergency Medicine	Loma Linda University-CA
19	Emergency Medicine	Maimonides Med Ctr-NY
20	Emergency Medicine	Montefiore Med Ctr/Einstein-NY
21	Emergency Medicine	Montefiore Med Ctr/Einstein-NY
22	Emergency Medicine	Montefiore Med Ctr/Einstein-NY
23	Emergency Medicine	SUNY HSC Brooklyn-NY
24	Emergency Medicine	SUNY HSC Brooklyn-NY
25	Emergency Medicine	SUNY HSC Brooklyn-NY
26	Emergency Medicine	U Michigan Hosps-Ann Arbor
27	Emergency Medicine	UC Davis Med Ctr-CA
28	Family Medicine	Boston Univ Med Ctr-MA
29	Family Medicine	Brown Med Sch/Memorial Hosp-RI
30	Family Medicine	Jamaica Hosp Med Ctr-NY
31	Family Medicine	Providence Hospital-DC
32	Family Medicine	SUNY HSC Brooklyn-NY
33	Family Medicine	U Michigan Hosps-Ann Arbor
34	General Surgery	Jacobi Med Ctr/Einstein-NY

	Specialization	Institution
35	General Surgery	Jacobi Med Ctr/Einstein-NY
36	General Surgery	Mayo Clinic School of Grad Med Educ-FL
37	General Surgery	Montefiore Med Ctr/Einstein-NY
38	General Surgery	Montefiore Med Ctr/Einstein-NY
39	General Surgery	Montefiore Med Ctr/Einstein-NY
40	General Surgery	Oregon Health & Science Univ
41	General Surgery	Stony Brook Teach Hosps-NY
42	General Surgery	Temple Univ Hosp-PA
43	General Surgery	University at Buffalo SOM-NY
44	Internal Medicine	B I Deaconess Med Ctr-MA
45	Internal Medicine	Boston Univ Med Ctr-MA
46	Internal Medicine	Boston Univ Med Ctr-MA
47	Internal Medicine	CA Pacific Med Center
48	Internal Medicine	Dartmouth-Hitchcock Med Ctr-NH
49	Internal Medicine	Hofstra Northwell SOM-NY
50	Internal Medicine	Icahn SOM Beth Israel-NY
51	Internal Medicine	Icahn SOM at Mount Sinai-NY
52	Internal Medicine	Icahn SOM at Mount Sinai-NY
53	Internal Medicine	Icahn SOM at Mount Sinai-NY
54	Internal Medicine	Icahn SOM at Mount Sinai-NY
55	Internal Medicine	Icahn SOM at Mount Sinai-NY
56	Internal Medicine	Icahn SOM at Mount Sinai-NY
57	Internal Medicine	Icahn SOM at Mount Sinai-NY
58	Internal Medicine	Jacobi Med Ctr/Einstein-NY
59	Internal Medicine	Jacobi Med Ctr/Einstein-NY
60	Internal Medicine	Jewish Hospital-OH
61	Internal Medicine	Johns Hopkins Hosp-MD
62	Internal Medicine	Johns Hopkins/Bayview-MD
63	Internal Medicine	Maimonides Med Ctr-NY
64	Internal Medicine	Maimonides Med Ctr-NY
65	Internal Medicine	Massachusetts Gen Hosp
66	Internal Medicine	Mayo Clinic School of Grad Med Educ-MN
67	Internal Medicine	Montefiore Med Ctr/Einstein-NY
68	Internal Medicine	Montefiore Med Ctr/Einstein-NY
69	Internal Medicine	Mt Auburn Hospital-MA

	Specialization	Institution
70	Internal Medicine	NYP Hosp-Columbia Univ Med Ctr-NY
71	Internal Medicine	NYP Hosp-Weill Cornell Med Ctr-NY
72	Internal Medicine	NYP Hosp-Weill Cornell Med Ctr-NY
73	Internal Medicine	NYU School Of Medicine
74	Internal Medicine	Oregon Health & Science Univ
75	Internal Medicine	Rhode Island Hosp/Brown Univ
76	Internal Medicine	Rush University Med Ctr-IL
77	Internal Medicine	Rutgers-New Jersey Medical School
78	Internal Medicine	Stony Brook Teach Hosps-NY
79	Internal Medicine	Stony Brook Teach Hosps-NY
80	Internal Medicine	Tufts Medical Center-MA
81	Internal Medicine	Tufts Medical Center-MA
82	Internal Medicine	U Michigan Hosps-Ann Arbor
83	Internal Medicine	U Rochester/Strong Memorial-NY
84	Internal Medicine	U Southern California
85	Internal Medicine	UC San Diego Med Ctr-CA
86	Internal Medicine	UCLA Medical Center-CA
87	Internal Medicine	UCLA Medical Center-CA
88	Internal Medicine	Yale-New Haven Hosp-CT
89	Neurology	Icahn SOM at Mount Sinai-NY
90	Neurology	Icahn SOM at Mount Sinai-NY
91	Neurology	NYU School Of Medicine
92	Obstetrics-Gynecology	Hofstra Northwell SOM-NY
93	Obstetrics-Gynecology	Icahn SOM at Mount Sinai-NY
94	Obstetrics-Gynecology	Icahn SOM at Mount Sinai-NY
95	Obstetrics-Gynecology	Kaiser Permanente-Oakland-CA
96	Obstetrics-Gynecology	Lincoln Medical Ctr-NY
97	Obstetrics-Gynecology	Montefiore Med Ctr/Einstein-NY
98	Obstetrics-Gynecology	Montefiore Med Ctr/Einstein-NY
99	Obstetrics-Gynecology	Montefiore Med Ctr/Einstein-NY
100	Obstetrics-Gynecology	NYMC-Westchester/Metropolitan-NY
101	Obstetrics-Gynecology	NYP Hosp-Columbia Univ Med Ctr-NY
102	Obstetrics-Gynecology	NYU Lutheran Medical Ctr-NY
103	Obstetrics-Gynecology	NYU School Of Medicine
104	Obstetrics-Gynecology	Thomas Jefferson Univ-PA

	Specialization	Institution
105	Obstetrics-Gynecology	U Colorado SOM-Denver
106	Obstetrics-Gynecology	U Connecticut School of Medicine
107	Ophthalmology	Icahn SOM at Mount Sinai-NY
108	Ophthalmology	Mass. Eye & Ear Infirmary
109	Ophthalmology	Montefiore Med Ctr/Einstein-NY
110	Ophthalmology	SUNY Upstate - Syracuse
111	Ophthalmology	Univ. Michigan
112	Orthopaedic Surgery	Boston Univ Med Ctr-MA
113	Orthopaedic Surgery	Georgetown Univ Hosp-DC
114	Orthopaedic Surgery	Montefiore Med Ctr/Einstein-NY
115	Orthopaedic Surgery	NYU School Of Medicine
116	Orthopaedic Surgery	Tufts Medical Center-MA
117	Orthopaedic Surgery	Yale-New Haven Hosp-CT
118	Otolaryngology	Montefiore Med Ctr/Einstein-NY
119	Otolaryngology	NYP Hosp-Columbia & Cornell-NY
120	Pathology	NYU School Of Medicine
121	Pathology	NYU School Of Medicine
122	Pediatrics	Case Western/Univ Hosps Cleveland Med Ctr-OH
123	Pediatrics	Childrens Hosp-Philadelphia-PA
124	Pediatrics	Childrens Hosp-Philadelphia-PA
125	Pediatrics	Childrens Hosp-Philadelphia-PA
126	Pediatrics	Childrens Hospital-Boston-MA
127	Pediatrics	Childrens Hospital-Oakland-CA
128	Pediatrics	Childrens Hospital-Oakland-CA
129	Pediatrics	Icahn SOM at Mount Sinai-NY
130	Pediatrics	Jacobi Med Ctr/Einstein-NY
131	Pediatrics	Jacobi Med Ctr/Einstein-NY
132	Pediatrics	Jacobi Med Ctr/Einstein-NY
133	Pediatrics	Jacobi Med Ctr/Einstein-NY
134	Pediatrics	Montefiore Med Ctr/Einstein-NY
135	Pediatrics	Montefiore Med Ctr/Einstein-NY
136	Pediatrics	Montefiore Med Ctr/Einstein-NY
137	Pediatrics	Montefiore Med Ctr/Einstein-NY
138	Pediatrics	Montefiore Med Ctr/Einstein-NY
139	Pediatrics	Montefiore Med Ctr/Einstein-NY

	Specialization	Institution
140	Pediatrics	NYMC-Westchester Med Ctr-NY
141	Pediatrics	NYP Hosp-Columbia Univ Med Ctr-NY
142	Pediatrics	NYP Hosp-Columbia Univ Med Ctr-NY
143	Pediatrics	NYP Hosp-Columbia Univ Med Ctr-NY
144	Pediatrics	NYP Hosp-Columbia Univ Med Ctr-NY
145	Pediatrics	NYP Hosp-Weill Cornell Med Ctr-NY
146	Pediatrics	Stanford Univ Progs-CA
147	Pediatrics	UC San Francisco-CA
148	Pediatrics	UCLA Medical Center-CA
149	Phys Medicine & Rehab	Hofstra Northwell SOM-NY
150	Phys Medicine & Rehab	Icahn SOM at Mount Sinai-NY
151	Phys Medicine & Rehab	NYP Hosp-Columbia & Cornell-NY
152	Psychiatry	Hosp of the Univ of PA
153	Psychiatry	Mayo Clinic School of Grad Med Educ-MN
154	Psychiatry	Montefiore Med Ctr/Einstein-NY
155	Psychiatry	NYP Hosp-Columbia Univ Med Ctr-NY
156	Psychiatry	NYP Hosp-Weill Cornell Med Ctr-NY
157	Psychiatry	SUNY HSC Brooklyn-NY
158	Radiation Oncology	Mayo Clinic School of Grad Med Educ-MN
159	Radiation Oncology	Memorial Sloan-Kettering-NY
160	Radiation Oncology	Montefiore Med Ctr/Einstein-NY
161	Radiation Oncology	Rutgers-R W Johnson Medical School-NJ
162	Radiology-Diagnostic	Boston Univ Med Ctr-MA
163	Radiology-Diagnostic	Case Western/Univ Hosps Cleveland Med Ctr-OH
164	Radiology-Diagnostic	Hofstra Northwell SOM-Lenox Hill Hosp-NY
165	Radiology-Diagnostic	Jacobi Med Ctr/Einstein-NY
166	Radiology-Diagnostic	Montefiore Med Ctr/Einstein-NY
167	Radiology-Diagnostic	NYP Hosp-Weill Cornell Med Ctr-NY
168	Radiology-Diagnostic	NYP Hosp-Weill Cornell Med Ctr-NY
169	Radiology-Diagnostic	NYU School Of Medicine
170	Radiology-Diagnostic	Rutgers-R W Johnson Medical School-NJ
171	Radiology-Diagnostic	UCLA Medical Center-CA
172	Radiology-Diagnostic	Wake Forest Baptist Med Ctr-NC
173	Urology	NYU School Of Medicine
174	Urology	Stony Brook Teach Hosps-NY