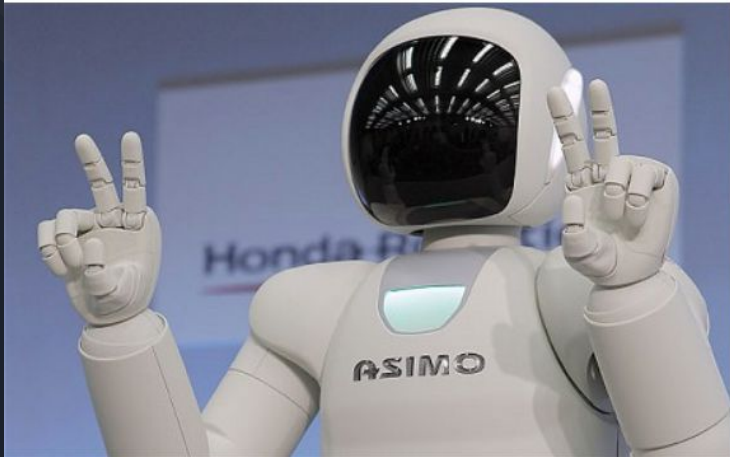


Stacia

Stacia: CSSE Professor Info Assistant



By Josh Abel, Daniel DeFoe, Markelle Kelly
and Samuel Verkruyse



Division of work

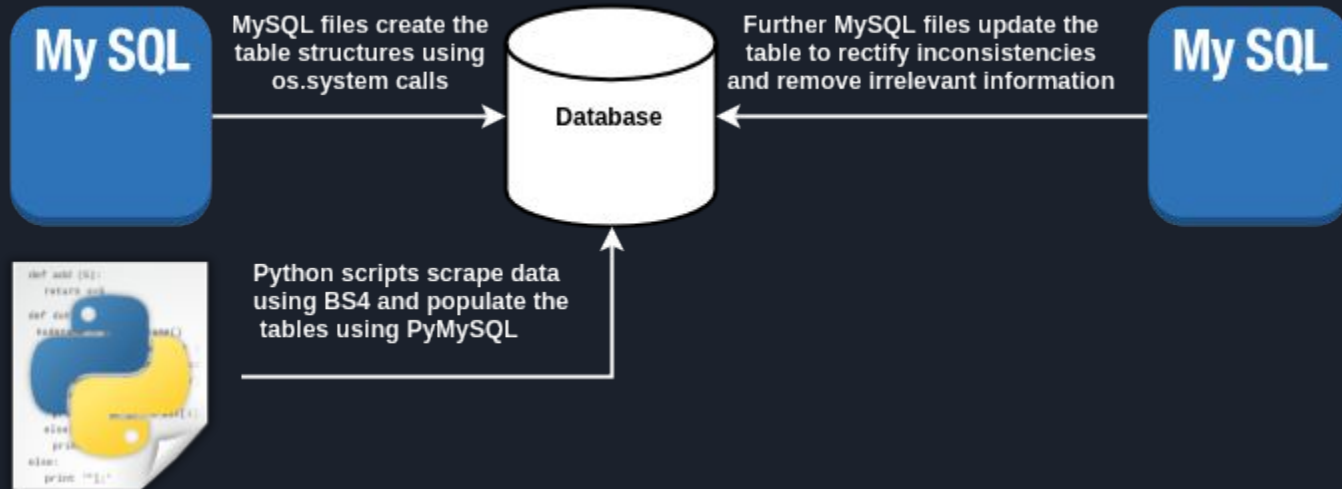
- Web scraping / database / sustainer: Josh and Sam
- Alternate interface: Sam
- Bot prediction: Josh
- Topic prediction: Daniel
- Variable parsing: Daniel and Markelle
- Overall infrastructure: Daniel and Markelle
- SQL query generation: Markelle
- English generation: Sam
- Testing: Daniel, Josh, and Markelle



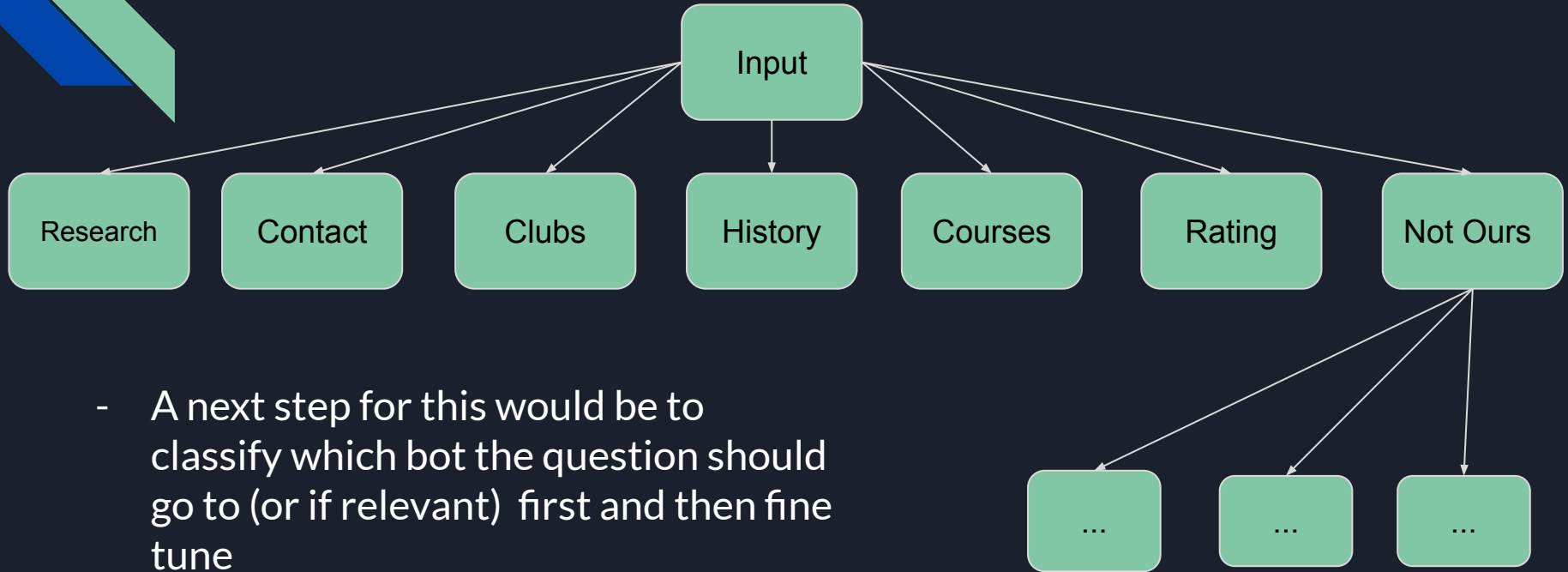
Sources

- Faculty directory
- Faculty paper submissions
- Historical staff & their degrees
- Cal Poly Schedules
- Polyratings
- CS Senior Projects
- CPE Senior Projects

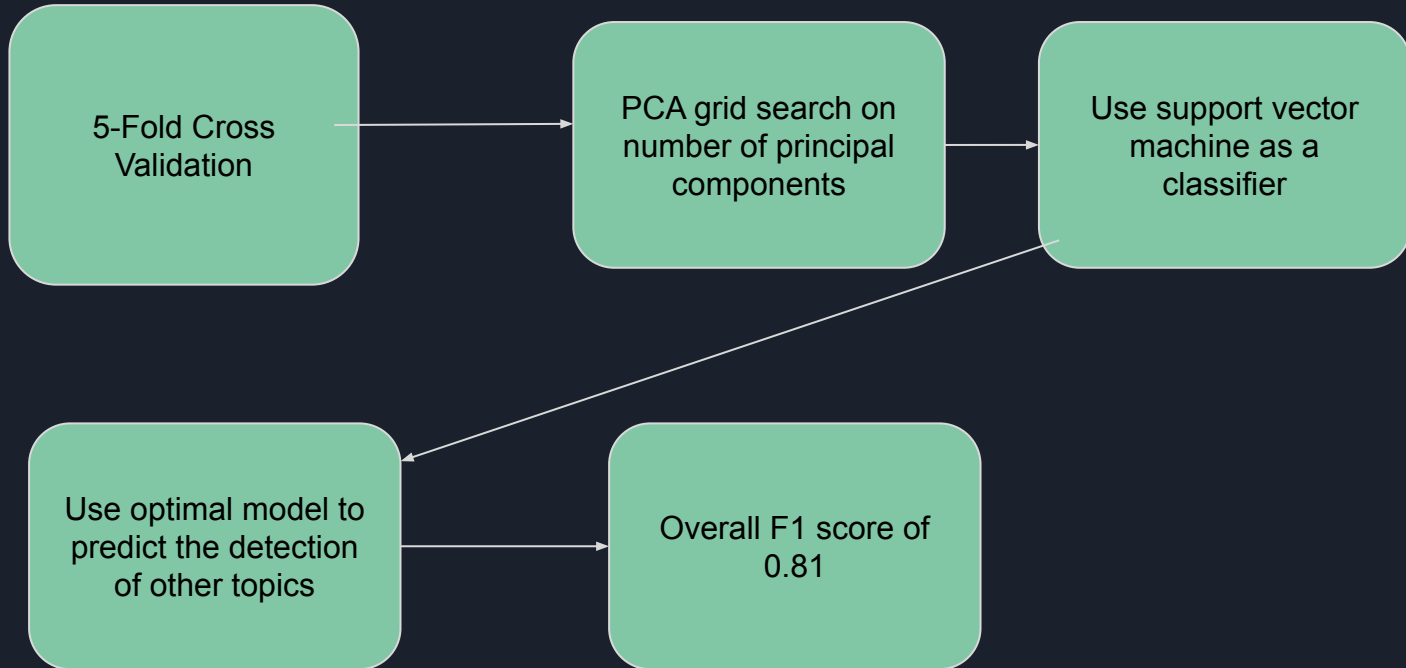
Sustainer



Machine Learning Path



Detecting Other Topics



SQL Query Generation

Which professors are interested in artificial intelligence?

SELECT

FROM

WHERE

2

3

1



English Generation

- Find what table the SQL Query came from
- Combine all results with the same first and last name
- Add response according to grammar template

```
--
46 More general
47
48 instructors
49 FirstName,LastName,position,chair,room,phone,url,email
50 The professors that match that query are
51 ([F][L])a ([position])the [chair])(who has room [room])(can be contacted at [phone])(can be emailed at [email])(can be found online at [url])
52
53 Schedule
54 FirstName,LastName,Courses,Sections,Types,Days,StartTime,EndTime,Locations,Quarter,Year
55 [F][L]
56 The courses that match that query are
57 ([Courses])([Sections]), taught by [F][L]) a [Types](on [Days])(at [StartTime]until [EndTime])(at [Location])(during [Quarter])[Year]
58
59 courses
60 FirstName,LastName,Courses,averagegrade,courseName
61 The ratings that match that query are
62 ([averagegrade]) (for [F][L]) (for [Courses],[courseName])
63
64 degrees
65 FirstName,LastName,university,degreetype,Year
66 The degrees that match that query are
67 ([degree] degree) (for [F][L]) (from [university]) (in [Year])
68
69 clubs
70 FirstName,LastName,clubname
71 The clubs that match that query are
72 ([F][L] is an advisor for)([clubname])
73
74 publications
75 FirstName,LastName,journalname,papernameThe publications that match that query are
76 ([F][L] wrote)(in [papername]) (in [journalname])
77
78 ratings
79 FirstName,LastName,polyrating,numratings
80 ([F][L] has)a rating of [polyrating] out of 4)(based on [numratings])
81
82 researchinterests
83 FirstName,LastName,researchinterests
84 ([F][L] is researching)([researchinterests])
85
86 seniorprojects
87 FirstName,LastName,projectname,studentname
88 ([F][L] was an advisor for )(projectname)) (by [studentname])
89
90 tenureinformation
91 startDate,enddate,FirstName,LastName,alumnater
92 ([F][L])(an alumni of [alumnater])(started teaching in [startdate])(stopped teaching in [enddate])
```


Alternate Interface





Next steps

- Fuzzy matching
- Sessions
- More natural Markov chains for English
- Fine tuning machine learning for other groups