Natural Language Processing (NLP)

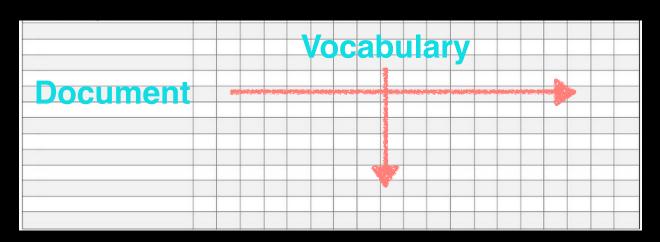
Has the Measles Outbreak Changed Your Views on Vaccination? Describe Your Experience

New York Times journalists would like to hear from parents, particularly those in California and Arizona, who have chosen not to vaccinate their children against measles and other diseases.

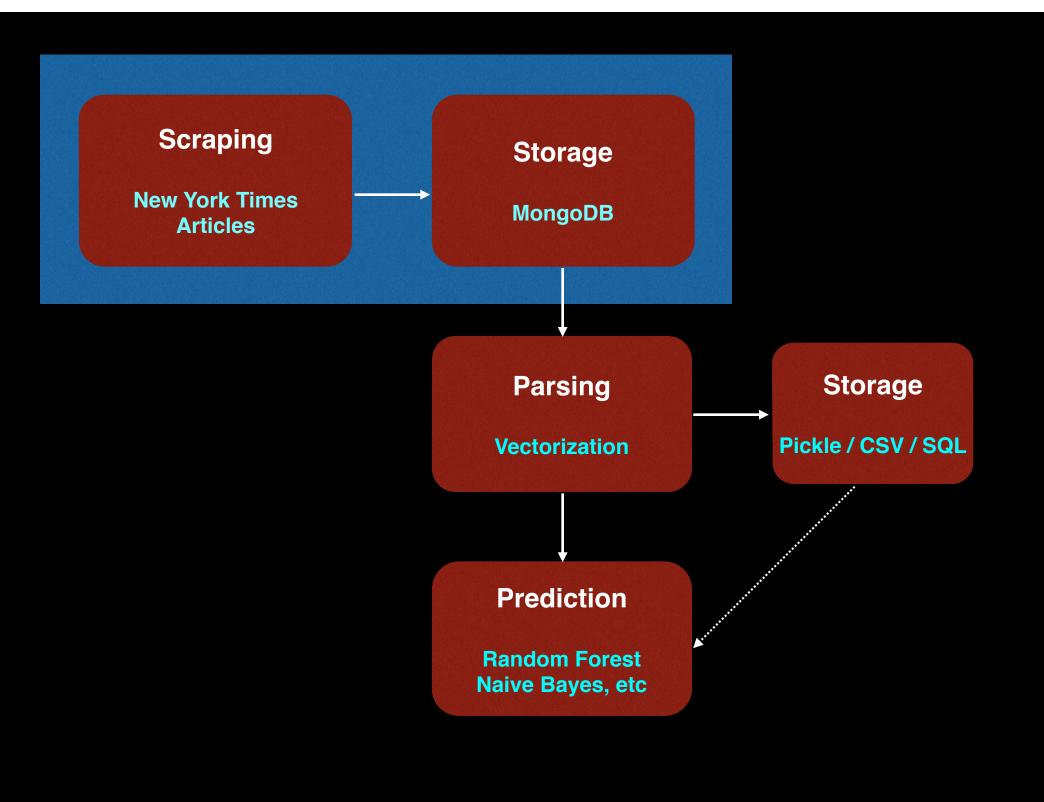


An outbreak of <u>measles</u> several weeks ago <u>at Disneyland in Southern</u> <u>California</u> focused minds and deepened concerns. It was as if the amusement park had become the tragic kingdom. Dozens of measles cases have spread across California. Arizona and other nearby states reported their own eruptions of this nasty illness, which officialdom had pronounced essentially eradicated in this country as recently as 2000.





Data Pipeline

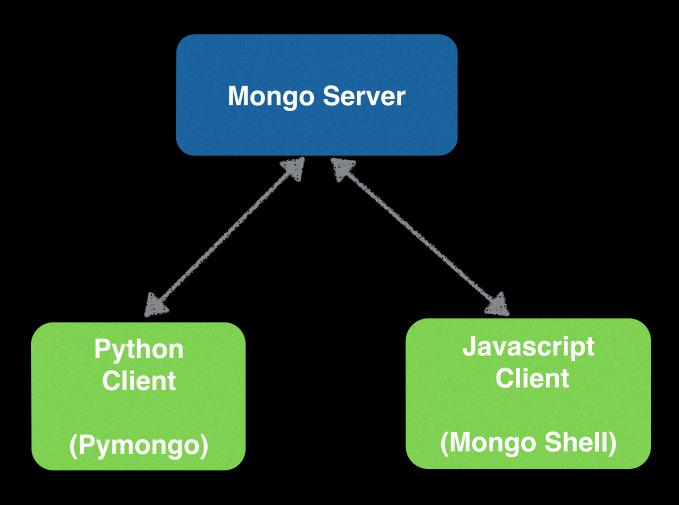


mongoDB

NoSQL Database

- Document-based database (json)
- Semi-scalable
- Good for storing unstructured data
- Schema-less
- No joins
- Suboptimal for complicated queries
- No transactions

Mongo Clients



Live Coding (See lecture.md)

Web Scraping

Goals

- Appreciate Internet Infrastructure
- Understand Internet Client and Server
- Use of CSS Selector for web scraping

Web VS Internet

- Web is www (World Wide Web)
- Different from Internet
- Web as collection of islands and internet as bridges connecting the islands

HTTP: The language of the Web

protocol

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http://mysite.com:80/index.html

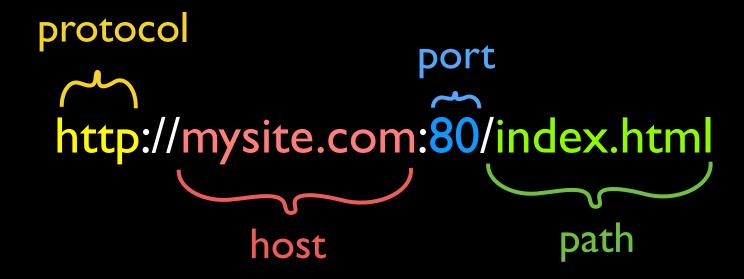
URI: Uniform Resource Identifier

file://test.txt

ftp://user@domain.com

http://mysite.com:80/index.html

http://mysite.com:80/index.html



response

```
GET /index.html HTTP/1.1
        Host: www.example.com
HTTP/1.1 200 OK
                              Headers
Content-Length: 3122
Content-Type: text/html
 single blank line
<html>
 <body>
                 Body (content)
 </body>
</html>
```

Client (speaker)

Server (listener)

HTTP: Stateless Protocol

- A website does not remember who you are when you visit again
- Cookies fix that by storing a packet of info on your laptop

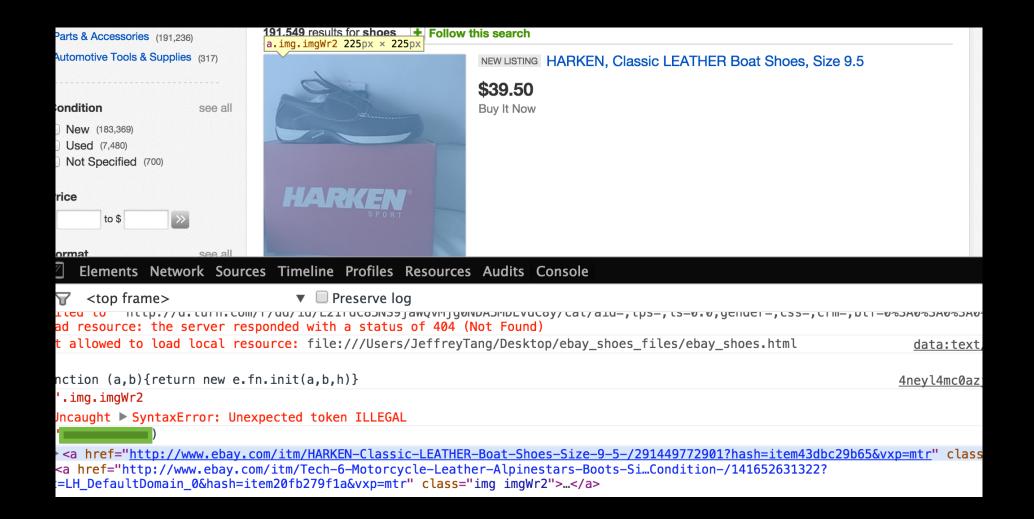
CSS Selectors

- CSS = Cascading Style Sheet
- CSS is used for formatting web pages
- CSS Selector selects elements on web pages

Resources for CSS selector

- CSS Cheat Sheet in the repo
- Game of fruit: http://flukeout.github.io/

Chrome DevTools



Scraping Demo