Scrapping Glassdoor

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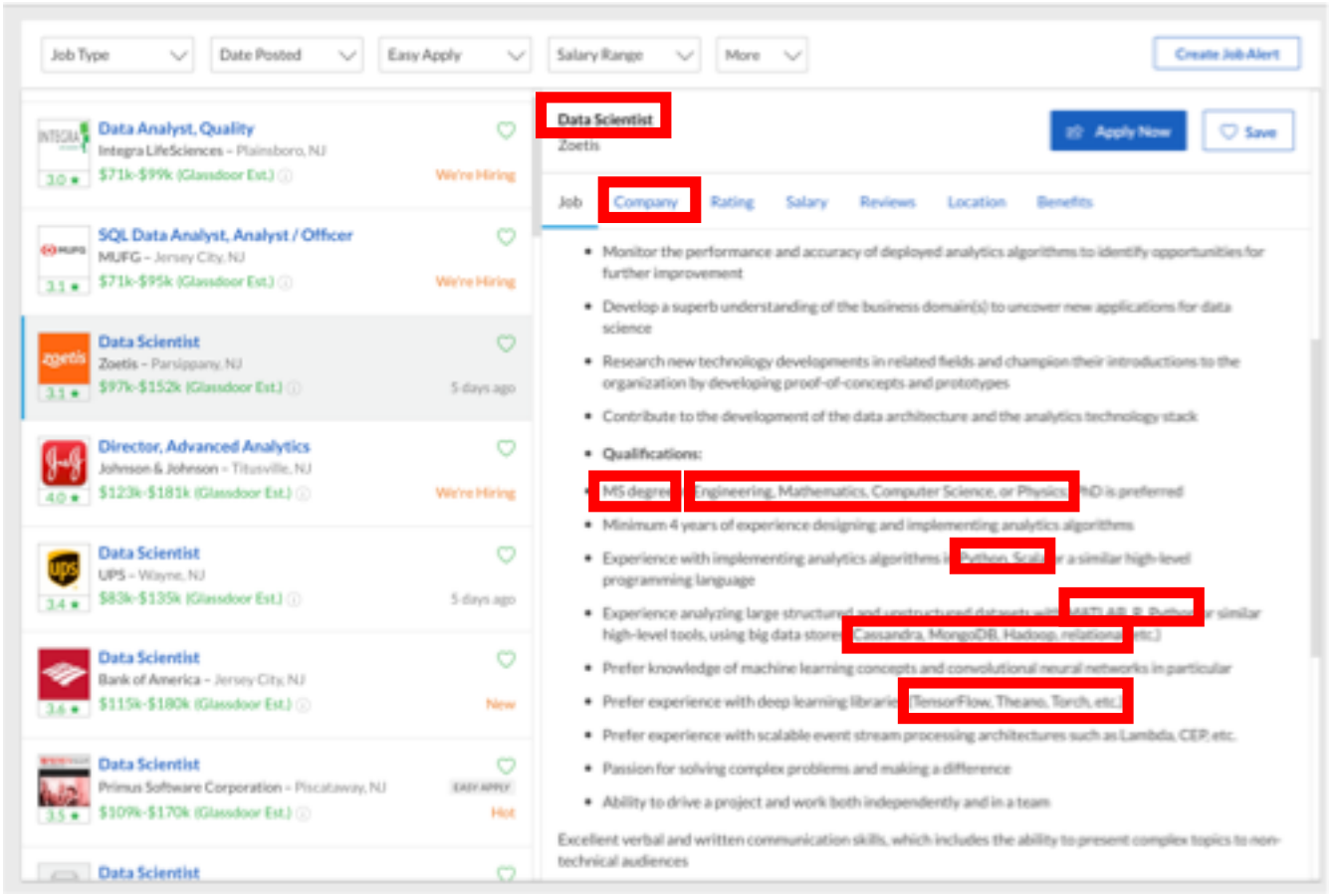
NYC Data Science Academy 2018

The Questions

- Skills companies were looking for when hiring
    - Data Analyst
    - Data Scientist
    - Data Engineer
- What companies are actively hiring?
- Does the skill requirement vary with the type of industry?

The Scrapping Process



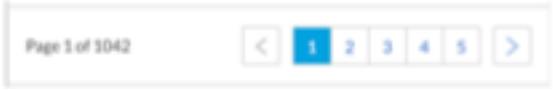
The Scrapping Process

Specific URL for every State

'https://www.glassdoor.com/Job/maine-data-science-jobs-SRCH_IL.0,5_IS758_KO6,18_IP1.htm'

'https://www.glassdoor.com/Job/ohio-data-science-jobs-SRCH_IL.0,4_IS2235_KO5,17_IP1.htm'

URL changes between pages



URLs do not change between job listings

Obtained job IDs with Scrapy

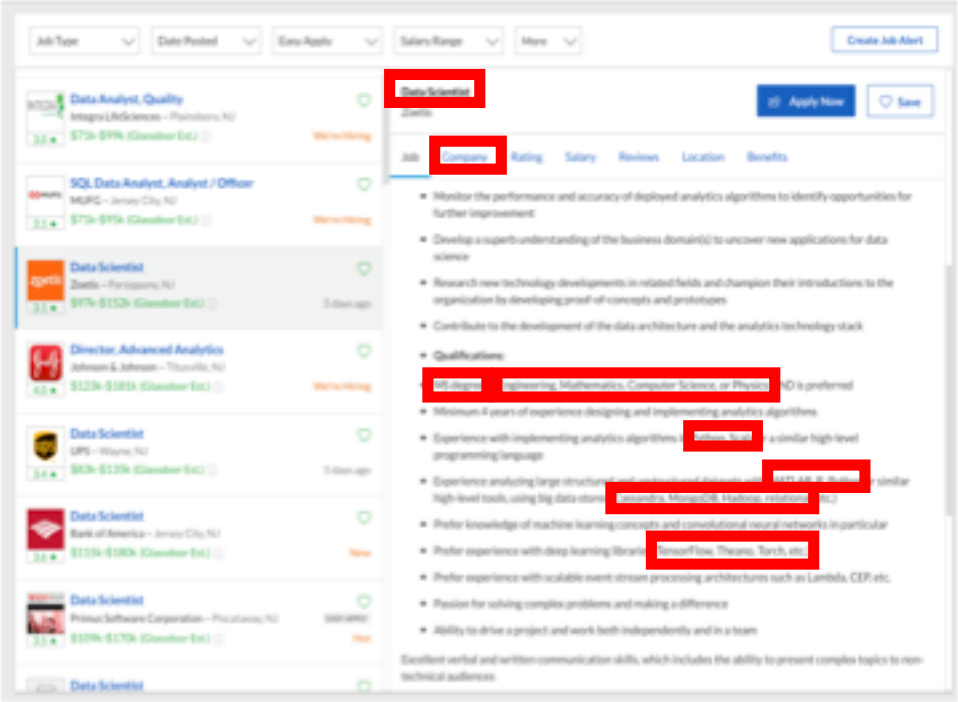
Used Selenium to extract the data

Specific job Listing IDs

jobListingId=2822327760',
jobListingId=2795371564',

Parsing Data

- Job Description
- Job Title
- Address
- Industry
- Sector



Job Description

- Regular Expression
- Key words

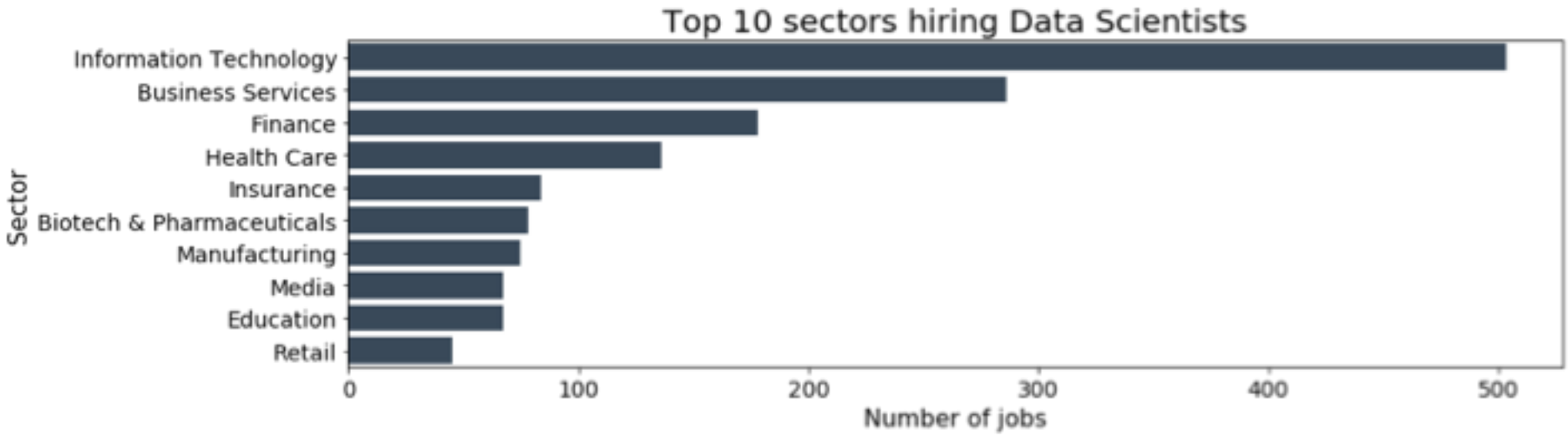
Job Titles

- 250 unique job titles in NY alone
- Binned them into:
  - Analyst (Lead, Intern, Junior)
  - Scientist
  - Engineer
  - Others (Managers, Director)

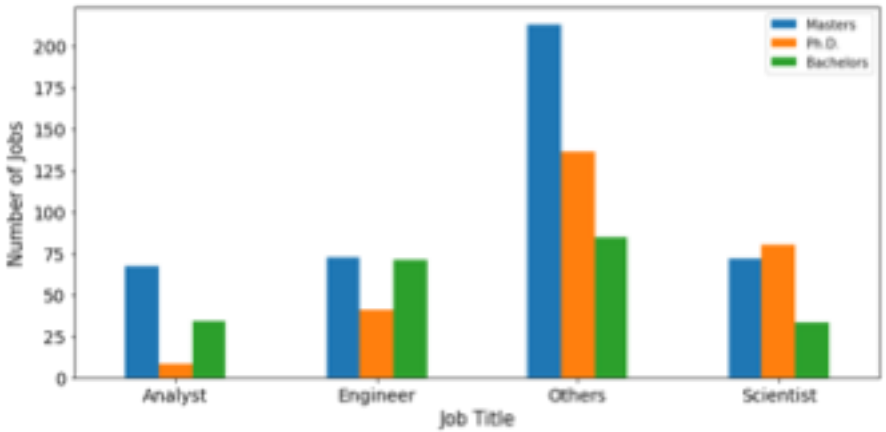
Address

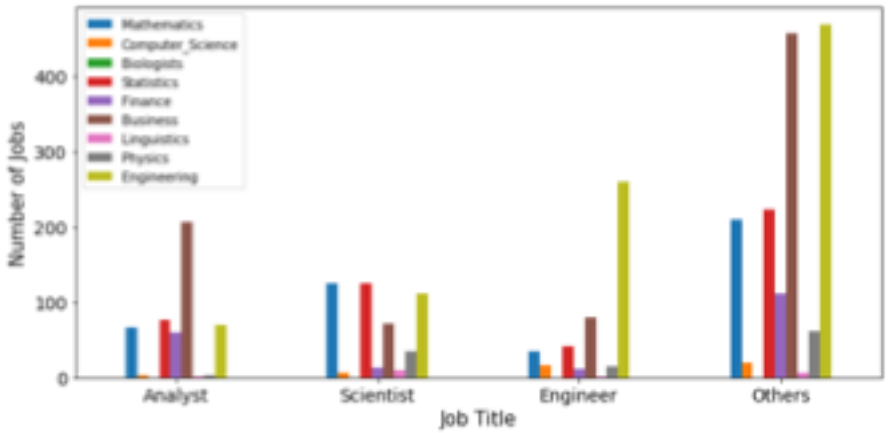
- Managed to scrape data from 6 states: MA, NY, NJ, PA, TX, CA

Which industry sectors are hiring data scientists?

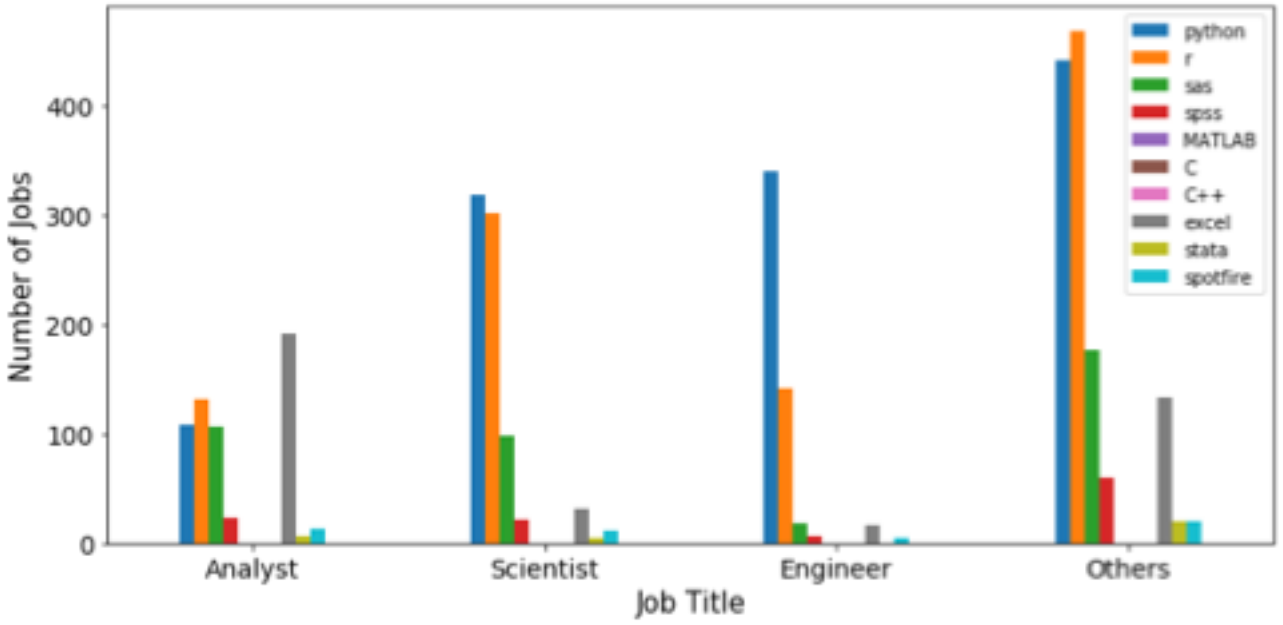


What are the educational requirements for data science jobs?





What are the important language skills for the data science jobs?



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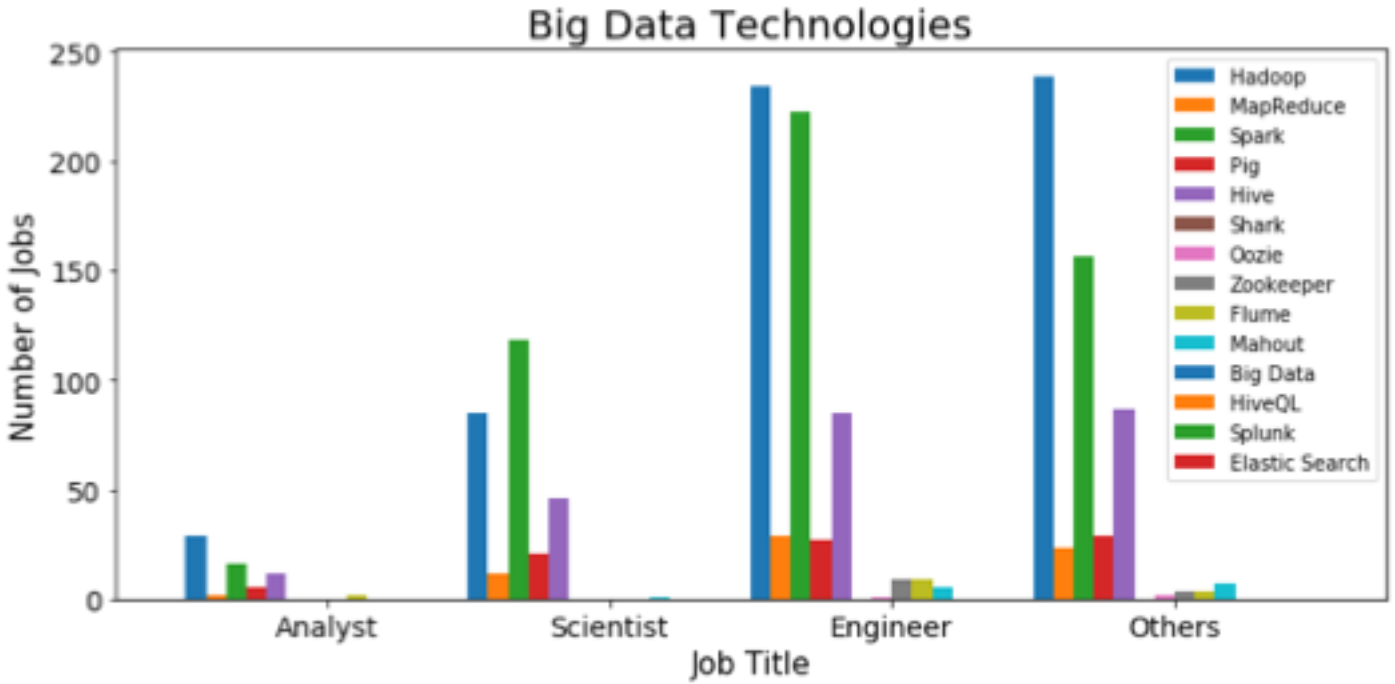

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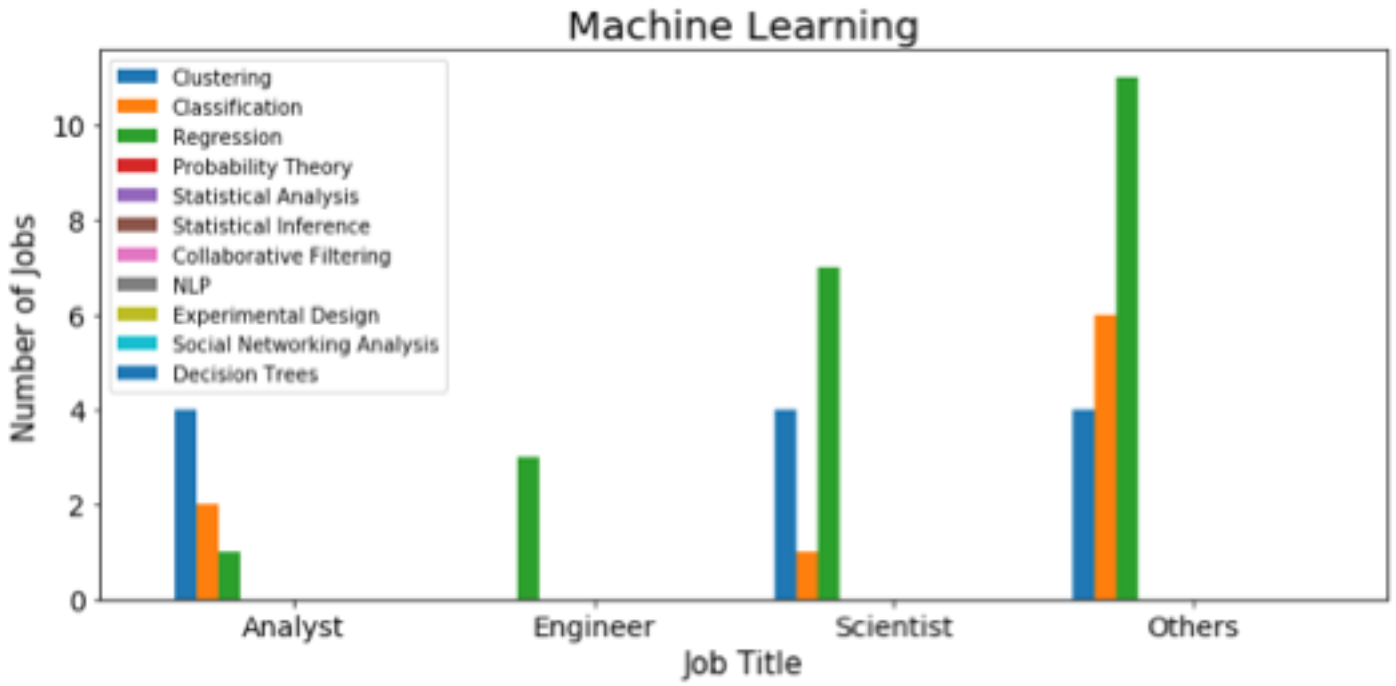

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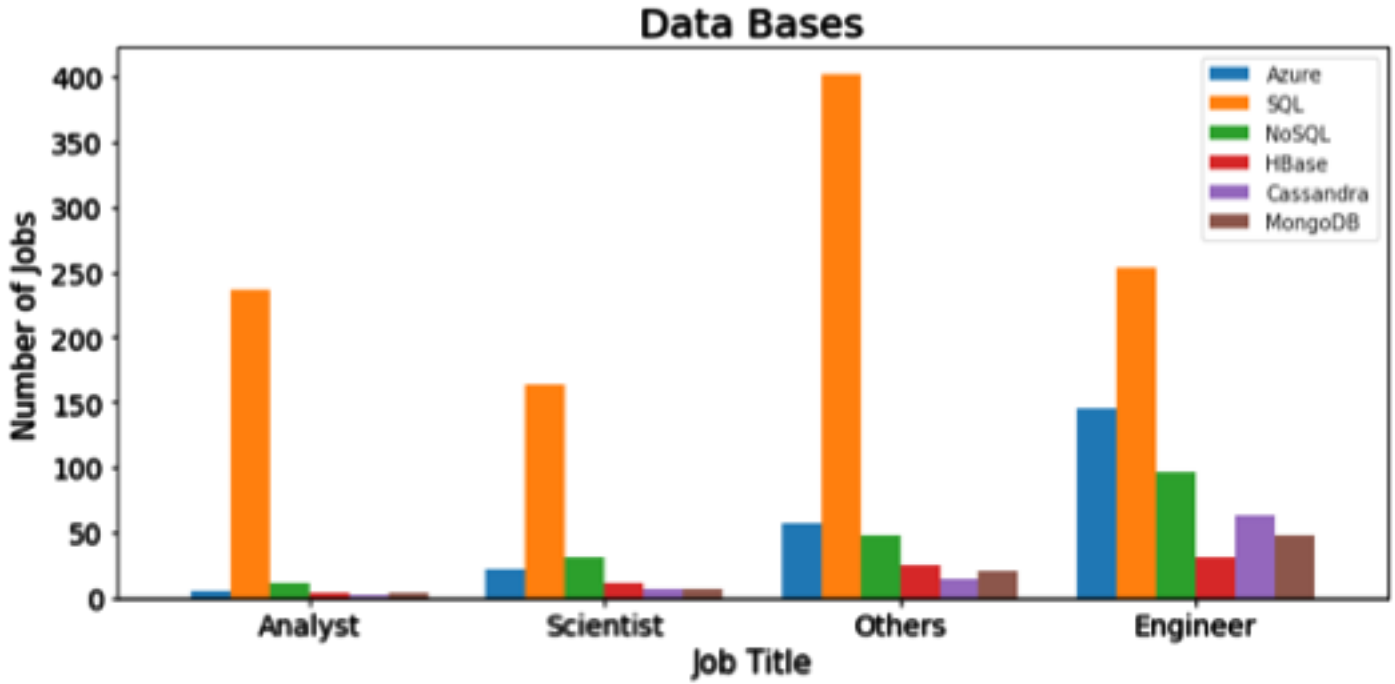
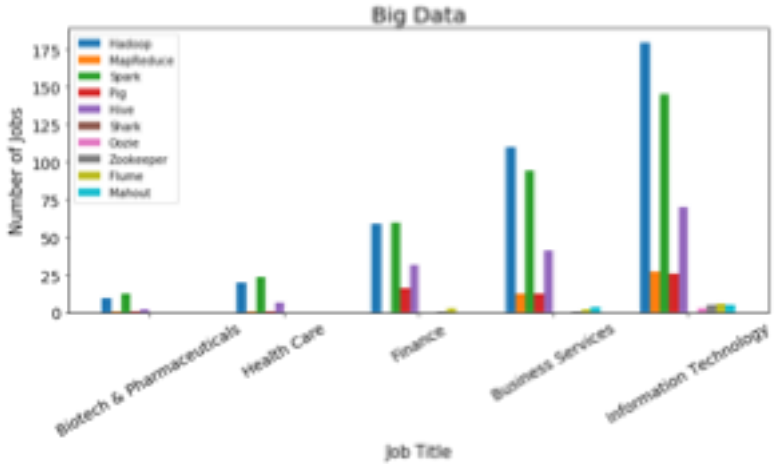
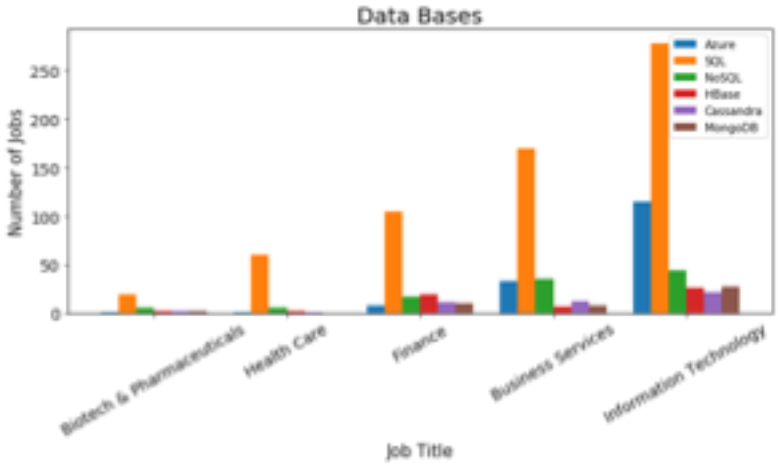
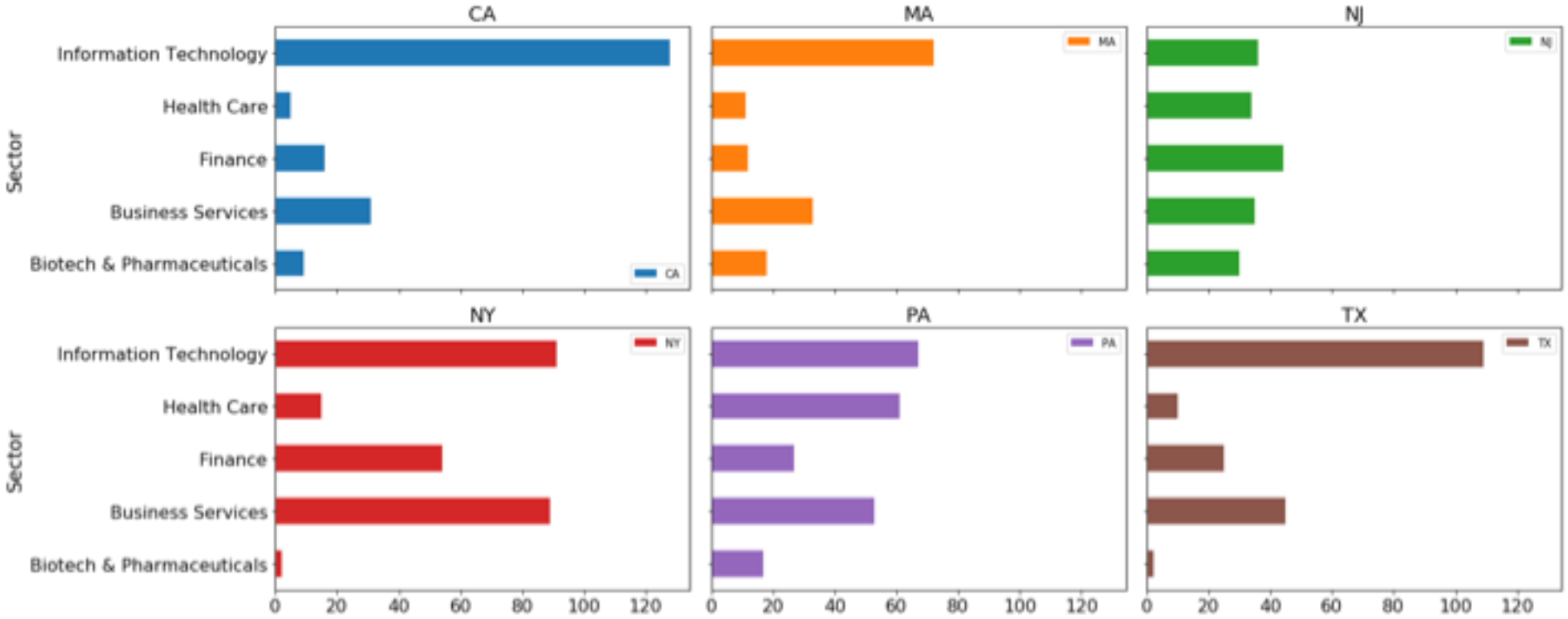


Does the skill requirements vary with the industry sector?





Distribution of data science jobs across states and sectors



Further Analysis

- Collect more data across different states and cities
- Improve the code to identify the important words efficiently
- Improve on the classification of job titles

Thank you