



Data Analyst Capstone Project

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OUTLINE



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- Introduction
- Methodology
- Results
 - Visualization – Charts
 - Dashboard
- Discussion
 - Findings & Implications
- Conclusion
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EXECUTIVE SUMMARY



- **Current Technology Usage**
 - Top 10 Languages
 - Top 10 Databases
 - Platforms
 - Top 10 Web Frameworks
- **Future Technology Trends**
 - Top 10 Languages Desired
 - Top 10 Databases Desired
 - Platforms Desired
 - Top 10 Web Framework Desired
- **Demographics**
 - Gender
 - Country
 - Age
 - Education Level / Gender

INTRODUCTION



- The top in demand programming languages
- The top in demand database
- Most popular IDEs

METHODOLOGY

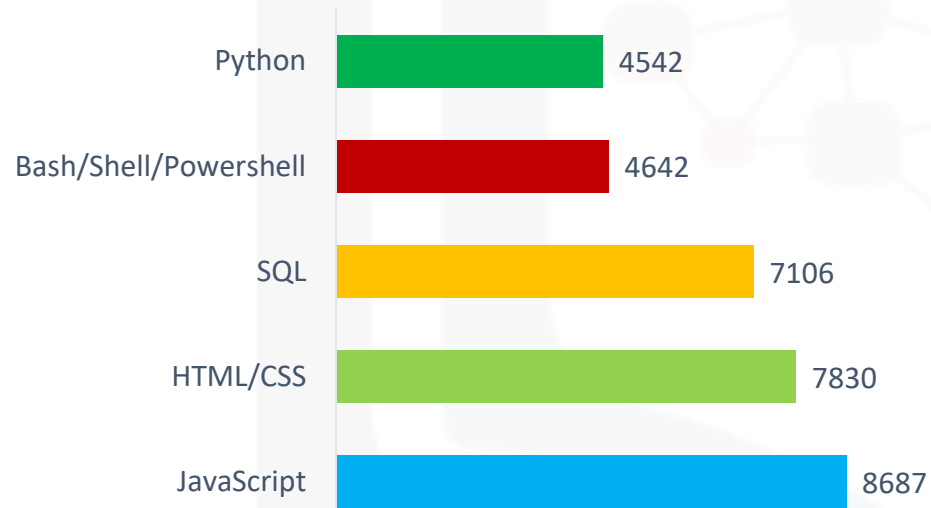


- Collecting Data using APIs
 - The GitHub Jobs API
- Scrape Data from the web
- Data Munging
 - Removing Duplicates
 - Imputing Missing Values
 - Normalizing Data
- EDA
 - Analyzing Data and Finding Outliers
 - Finding Correlation
- Data Visualization and Building a Dashboard

PROGRAMMING LANGUAGE TRENDS

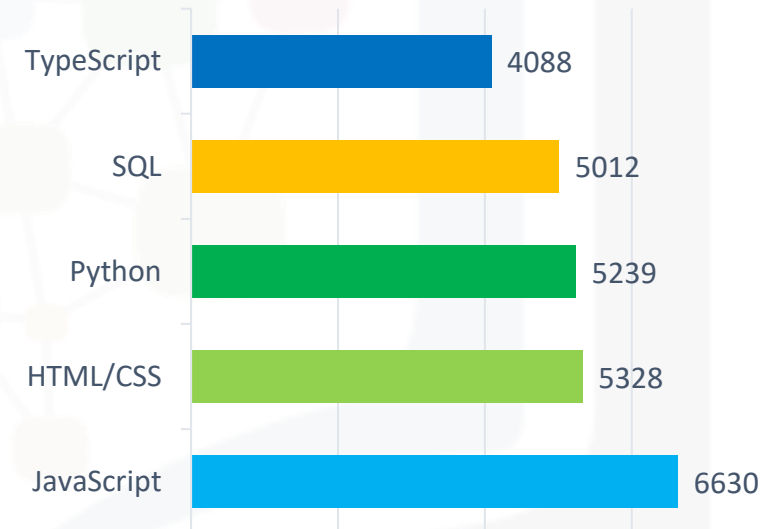
Current Year

Top 5 Programming Languages



Next Year

Anticipated Top 5 Programming Languages



PROGRAMMING LANGUAGE TRENDS - FINDINGS & IMPLICATIONS

Findings

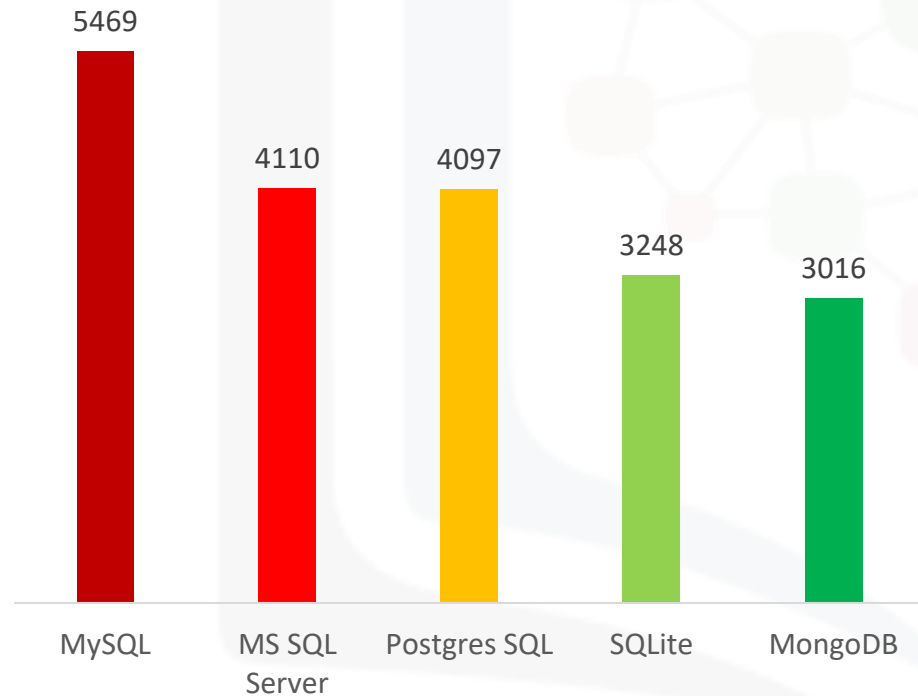
- JavaScript Is the most popular language to use currently and also in the future.
- HTML/CSS is the second most popular language to use currently in the future.
- Python trend is rising clearly.

Implications

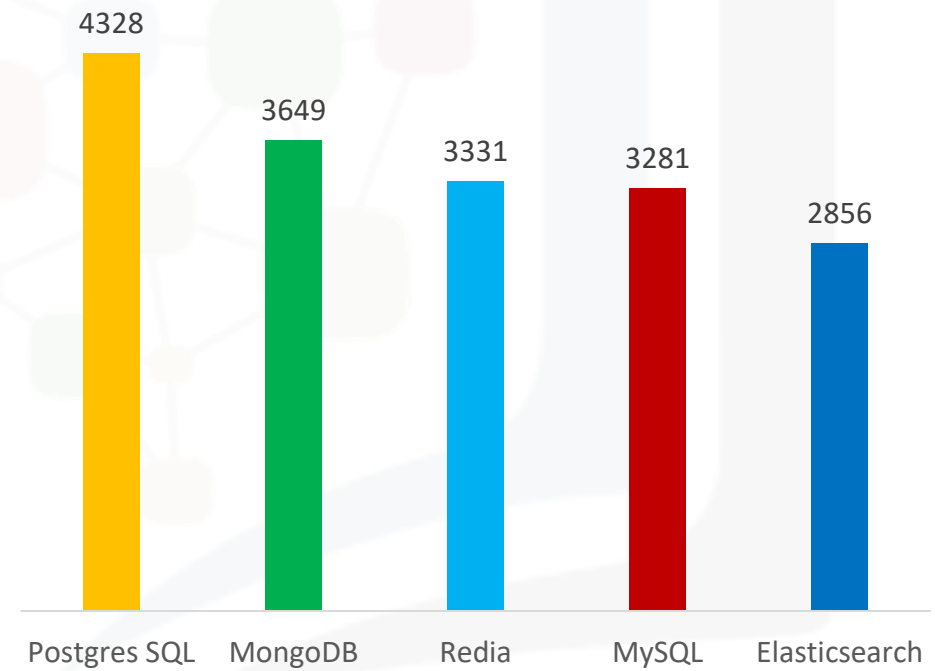
- Python Is than you trend for the future I need to be focused.
- TypeScript might be replacing JavaScript in the long future.
- SQL is losing its momentum.

DATABASE TRENDS

Current Year



Next Year



DATABASE TRENDS - FINDINGS & IMPLICATIONS

Findings

- RDBMS has the dominant trend currently, but not for long.
- Non-RDBMS have the dominant trend in the future.

Implications

- NoSQL databases are getting more trending.
- Big Data appears to become popular in the near future.

DASHBOARD



[Cognos Dashboard Link](#)

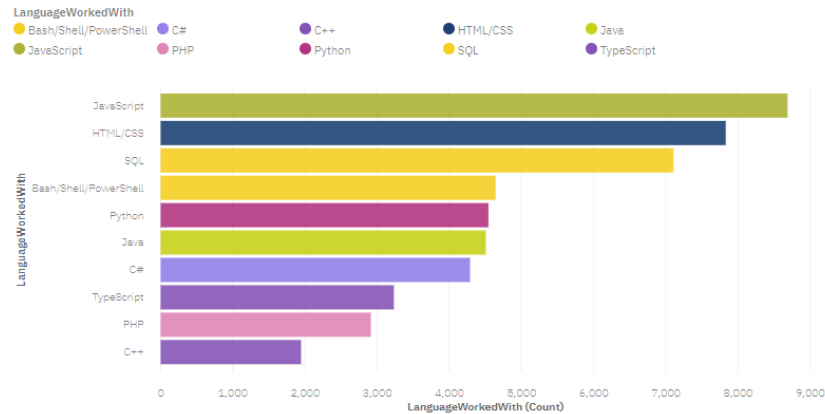
DASHBOARD TAB 1

Current Technology Usage

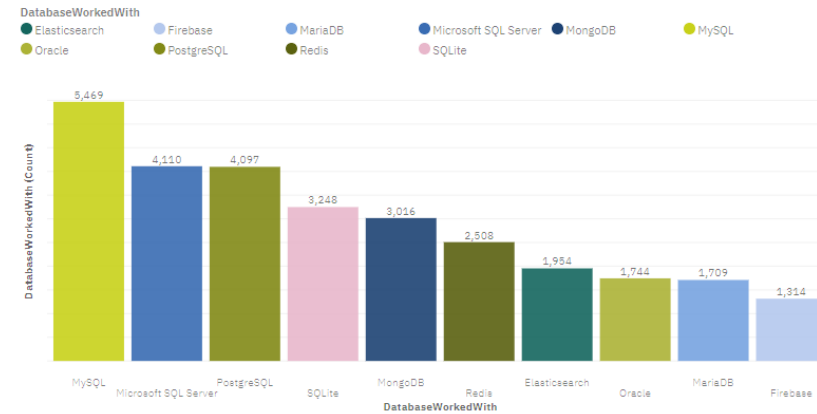
Future Technology Trend

Demographics

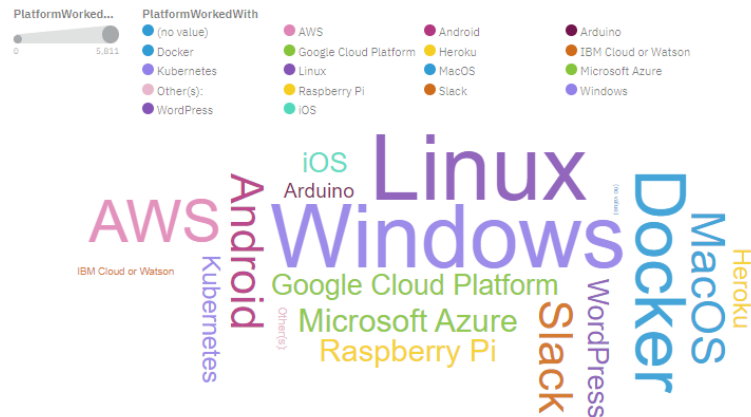
Top 10 Languages Worked With



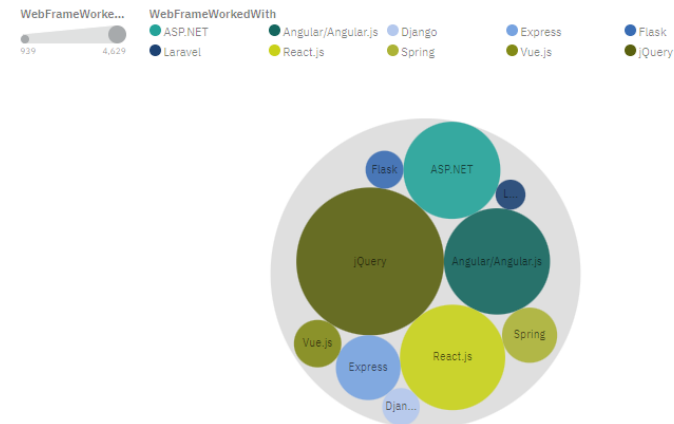
Top 10 Databases Worked With



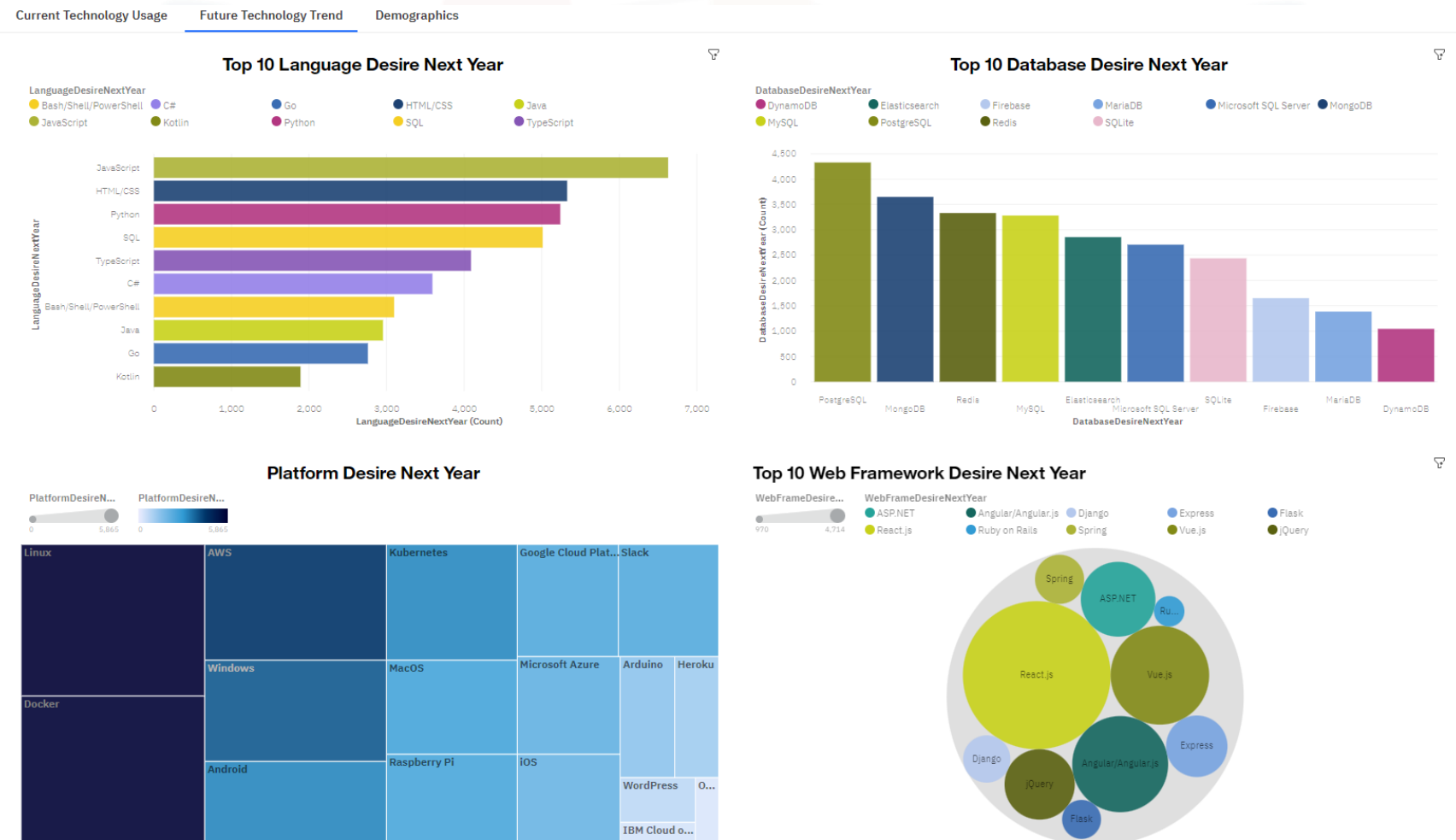
Platforms Worked With



Top 10 Web Frameworks Worked With



DASHBOARD TAB 2



DASHBOARD TAB 3

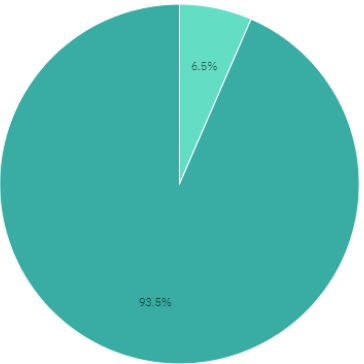
Current Technology Usage

Future Technology Trend

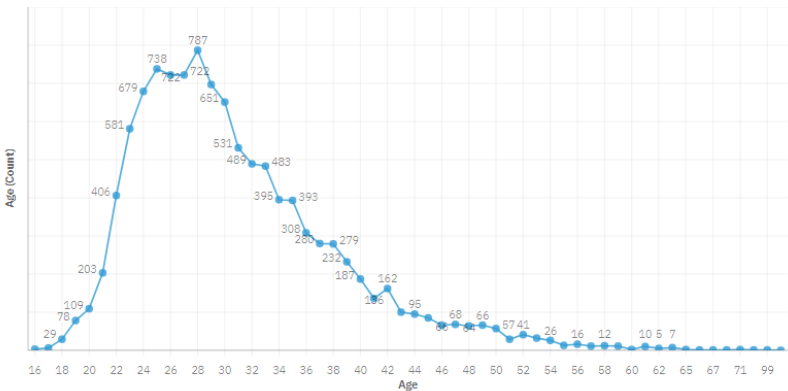
Demographics

Respondents classified by Gender

Gender
Woman Man



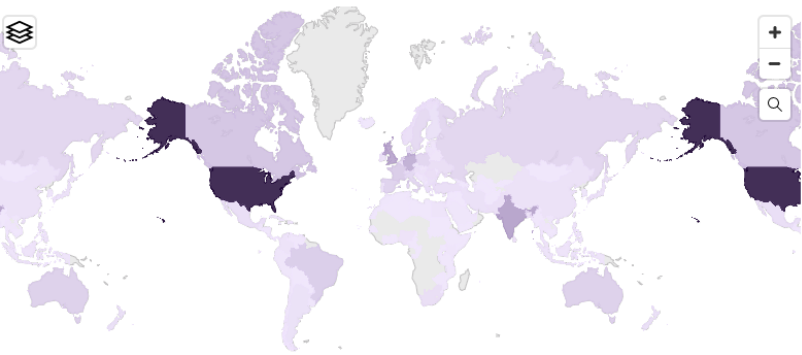
Respondent Count by Age



Respondent Count for Countries

Country (Count)

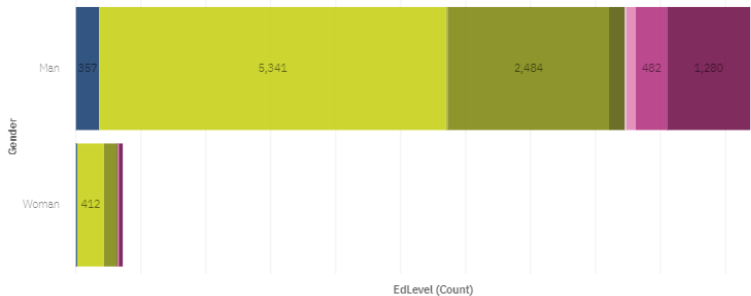
1 3,127



Respondent Count by Gender, classified by Formal Education Level

EdLevel

Associate degree Bachelor's degree (BA, BS, B.E., B.S.) I never completed any formal ... Master's degree (MA, MS, M.E., M.A.) Other doctoral degree (Ph.D., E.D., etc.) Primary/elementary school Professional degree (JD, MD, etc.) Secondary school (e.g. American high school) Some college/university study ...



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DISCUSSION

- It is clear from the previous study that, the upcoming future is big for big data and so the curve of dig data technologies and related programming languages is getting higher.

OVERALL FINDINGS & IMPLICATIONS

Findings

- The upcoming programming trend is for easier programming languages like Python, TypeScript.
- The databases' upcoming trend is for non relational databases.

Implications

- People are looking for advanced programming languages along with easy learning.
- People are looking for big data technologies as data is everywhere.

CONCLUSION



- Python is getting high in future demand.
- Non relational databases are trending and Postgres is getting lights on.
- React framework is getting higher interest.