Data Analyst Capstone Project

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OUTLINE

- Executive Summary

- Introduction

- Methodology

- Results

- Discussion

- Conclusion

EXECUTIVE SUMMARY

- JavaScript, Python, HTML/CSS, SQL, and TypeScript are the most desirable programming.

- PostgreSQL, MongoDB, Redis, MySQL, and ElasticSearch are the most desirable databases.

- Gender gap in the IT industry.

INTRODUCTION

- Stack Overflow conducted a survey among developers about technology trends in 2019.

- Target audience:
  - IT professionals
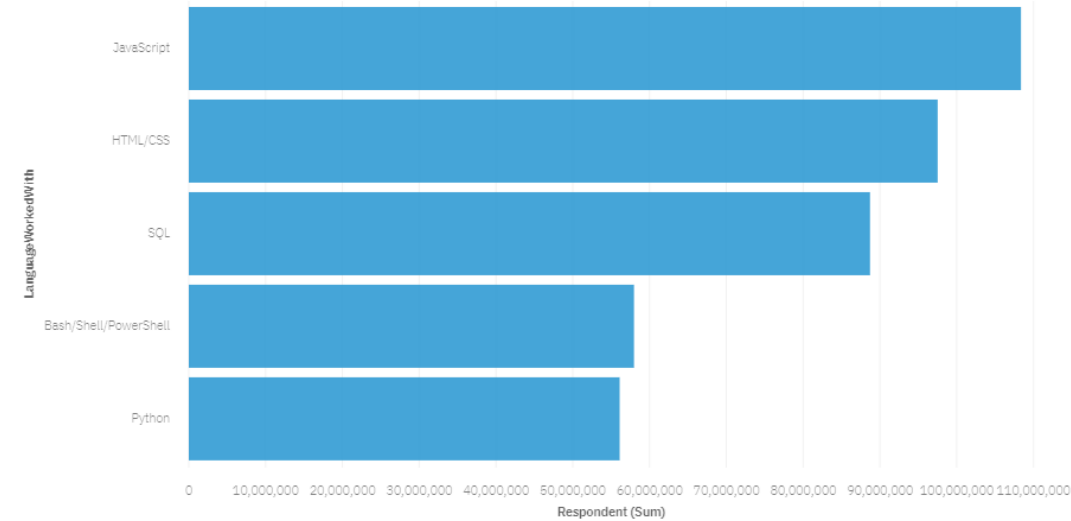 - Individuals in the IT field
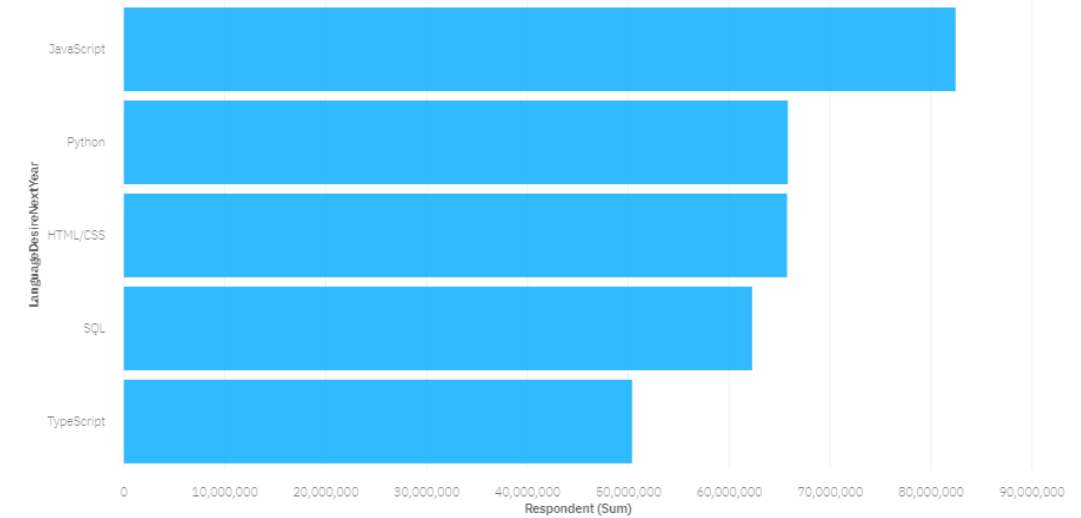
METHODOLOGY
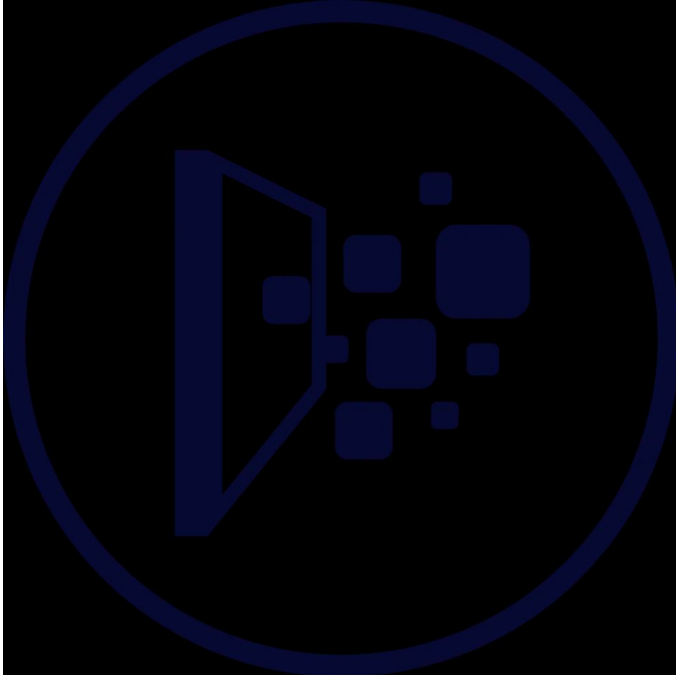
- Data Sources:
    - Stack Overflow Survey 2019
    - Github Job Posting
    - Programming Language Annual Salary

- Data Exploration and Cleaning
    - Python

- Data Visualization
    - IBM CognosAnalytics

- Presentation

PROGRAMMING LANGUAGE TRENDS

Top 5 Programming Languages Worked With

Top 5 Programming Languages Desired for Next Year

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# PROGRAMMING LANGUAGE FINDINGS & IMPLICATIONS

Findings

- JavaScript - The most demanded programming language.

- Other- Python, HTML/CSS, and SQL

- TypeScript more desirable

  than Bash/Shell/PowerShell.

Implications

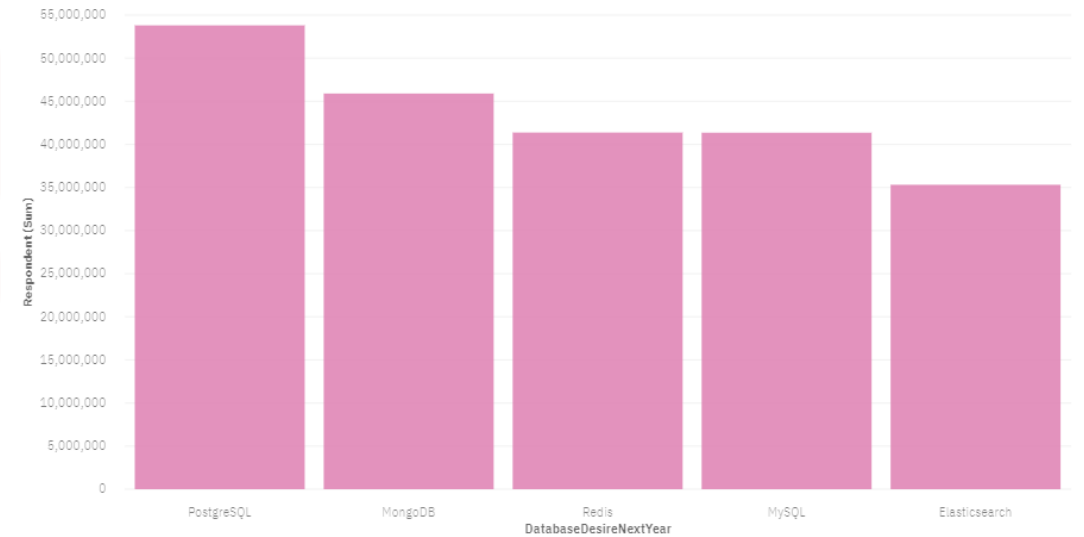- Python's increase may surpass JavaScript in the future.

- Consistent demand for HTML/CSS, Java, SQL, and Python.

- High demand for Web Development

DATABASE TRENDS

Top 5 Databases Worked With
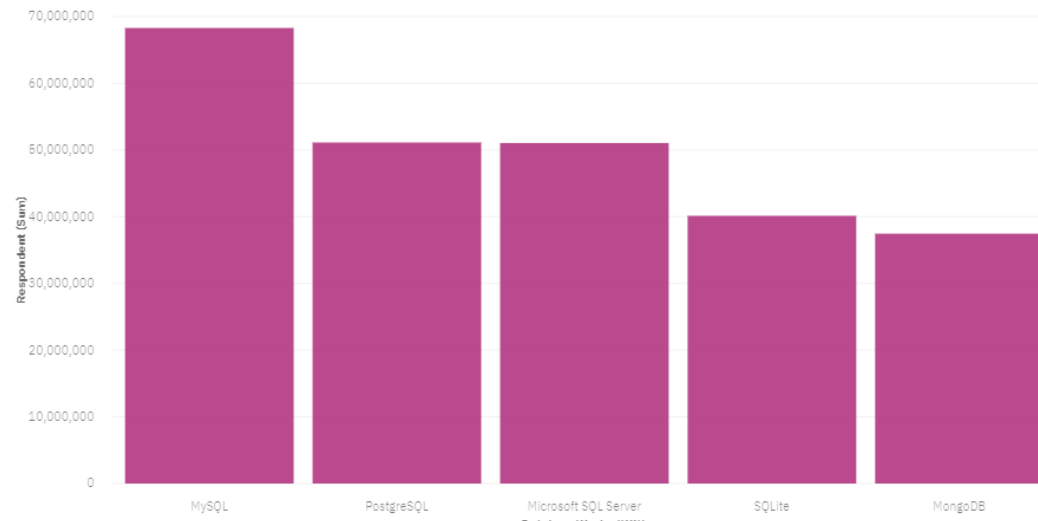
Top 5 Databases Desired for Next Year

DATABASE
FINDINGS & IMPLICATIONS

Findings

- Demand increase:
  PostgreSQL - MongoDB

- Demand decrease:
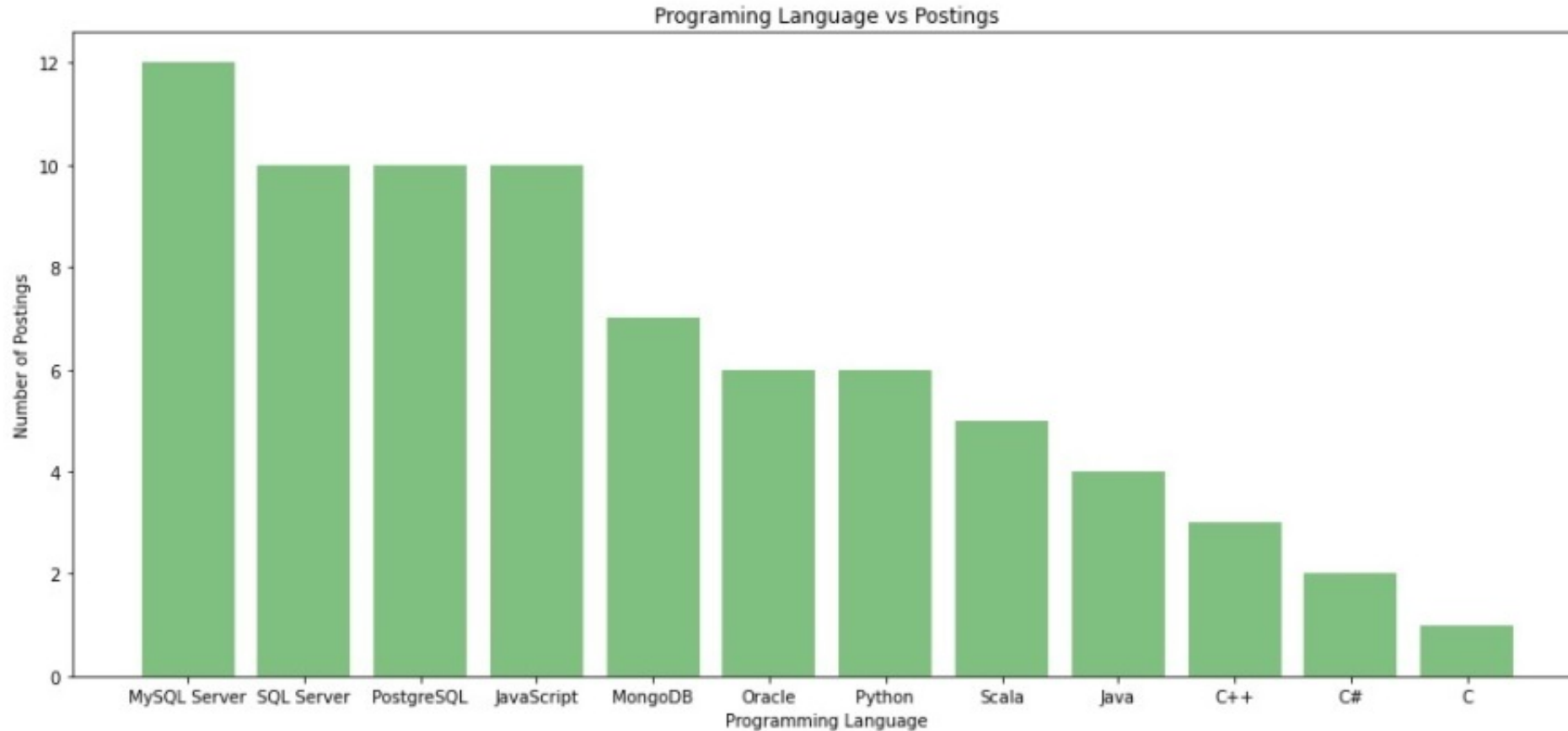   MySQL

- Desire increase:
  Redis - ElasticSearch

Implications

- Demand consistency:
  PostgreSQL - MongoDB

- Preferred databases: Open Source

GITHUB JOB POSTINGS

Programming Language vs Salary

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POPULAR LANGUAGES

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DASHBOARD

<https://dataplatform.cloud.ibm.com/dashboards/f0081943-1354-4668-ae48-29245ab2d0f5/view/5460d50564962be150d0b1e407cf2a527e652c54babb8b0b87d17b490a602497a83b1196c8284c58da14066bfbe9405ec1>
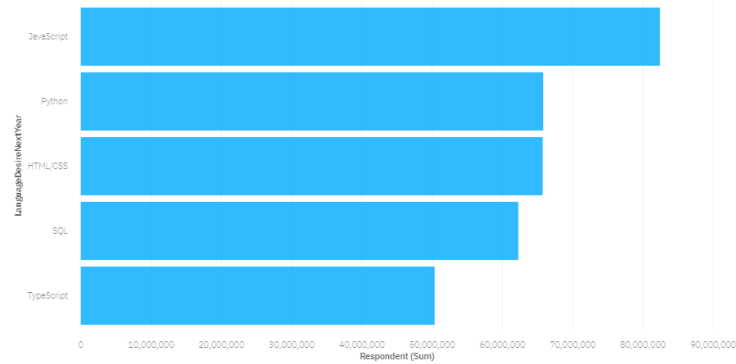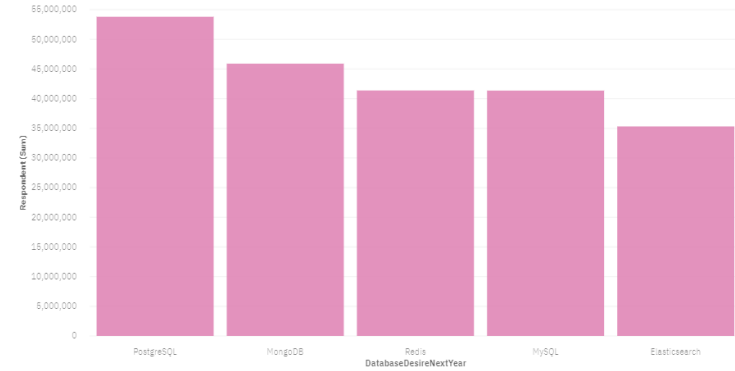
DASHBOARD TAB

DASHBOARD TAB 2

DASHBOARD TAB 3
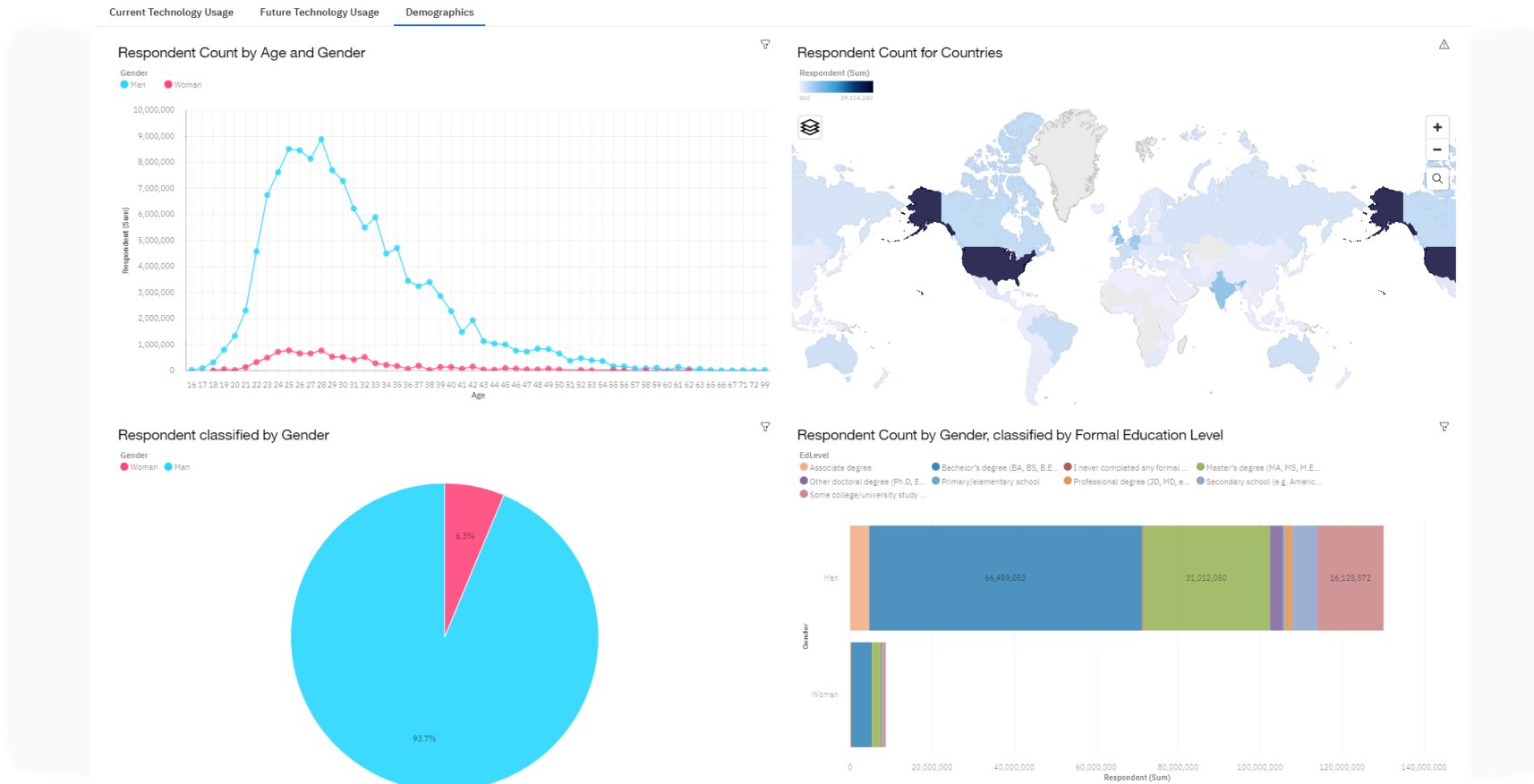
DISCUSSION

- New technology constantly emerges leading to changes in demand.
- The IT industry needs to diversify in order to eliminate gender gap.

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FINDINGS & IMPLICATIONS

Findings

- Demands and trends can vary based on new technologies.

- Popular Languages: JavaScript - Python

- Popular Databases: PostgreSQL

Implications

- Companies and individuals need to adapt the new demands.

- Proficiency in higher demand skills can lead to more opportunities.

CONCLUSION

- New technologies lead to varied trends and demands.

- Most popular programming Languages: JavaScript - Python

- Most popular database: PostgreSQL

- The Information Technology field needs diversity.

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