



Technology Trends

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OUTLINE



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EXECUTIVE SUMMARY



- Web-based languages are the most popular
- Use of SQL is still relevant, but there's an increasing trend in non-relational databases
- Machine learning and AI tools and platforms are becoming more relevant
- Rapid changes in trends are observed

INTRODUCTION



- Technology trends change quickly every year
- Analyzing these trends helps software companies to make decisions to remain competitive
- Four main areas analyzed:
 - Programming languages
 - Databases
 - Platforms
 - Web frameworks

METHODOLOGY



- Data Sources:
 - Stack Overflow Developer Survey 2019
 - Github Job Postings
 - Programming Languages Annual Salary
- Data Wrangling
- Exploratory data analysis
- Data visualization and dashboard creation

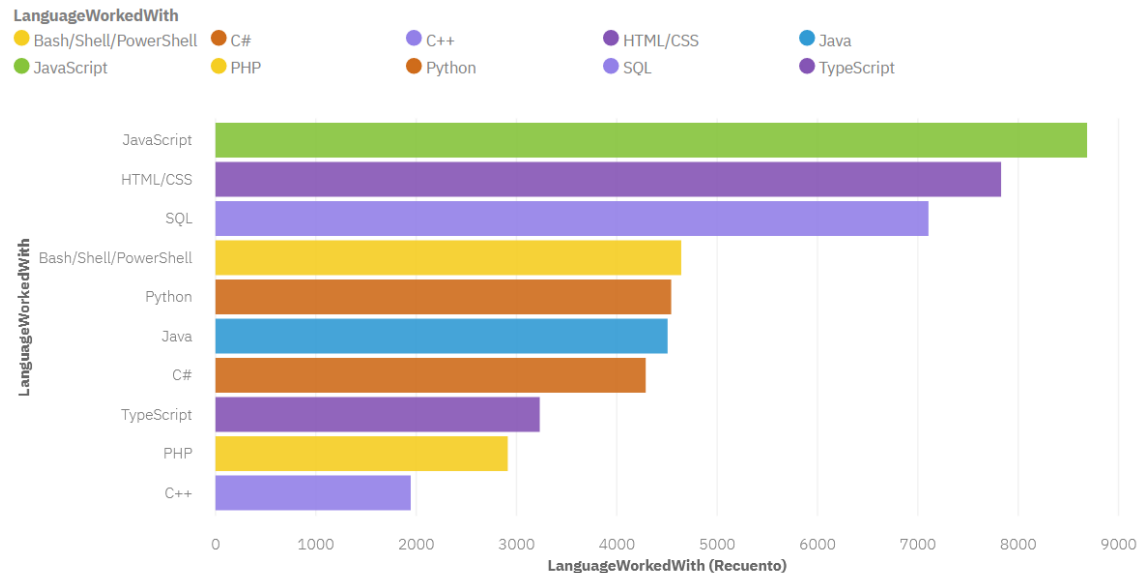
RESULTS



PROGRAMMING LANGUAGE TRENDS

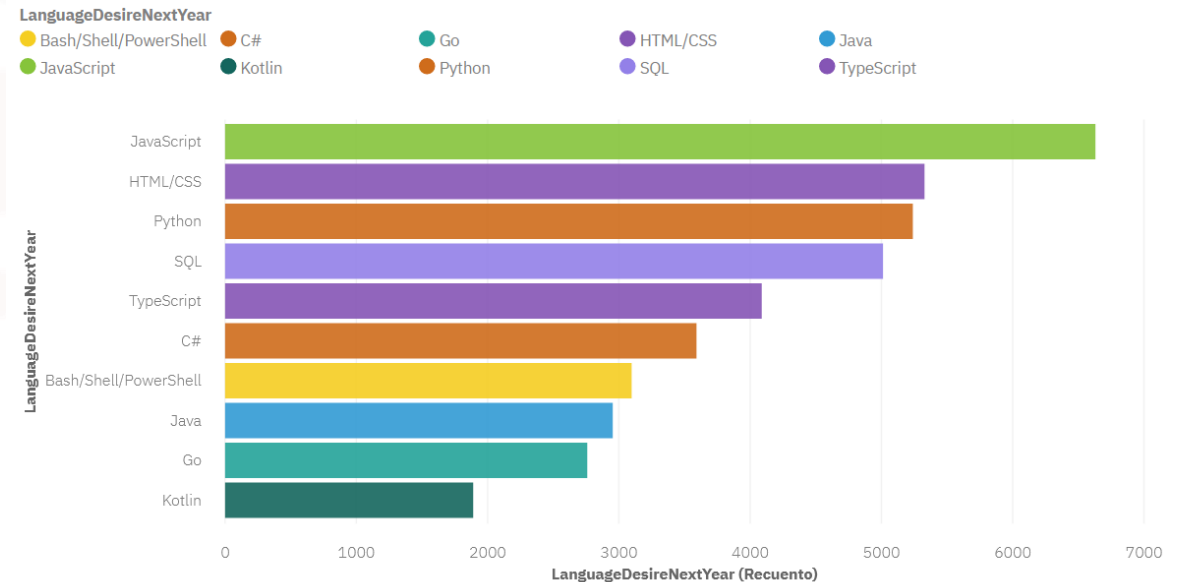
Current Year

Top 10 Programming Languages Used



Next Year

Top 10 Programming Languages Desired to Learn Next Year



PROGRAMMING LANGUAGE TRENDS - FINDINGS & IMPLICATIONS

Findings

- Javascript and HTML/CSS are the top languages for current and next year
- There's a growing interest in python and typescript
- Decreased interest in SQL, java, C# and bash

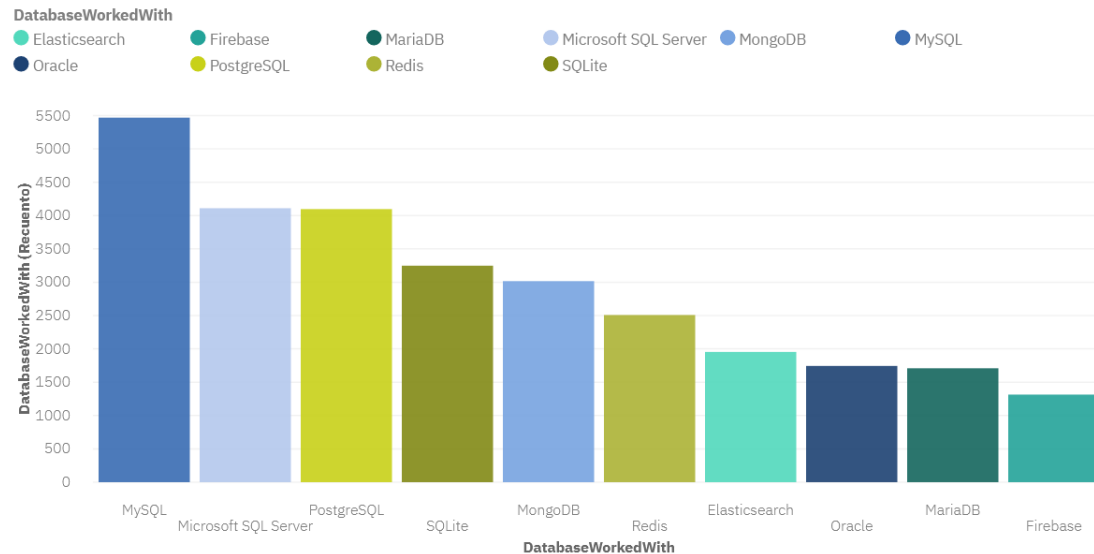
Implications

- High interest in web development
- Growing interest in data science and machine learning tasks
- SQL is still required for companies

DATABASE TRENDS

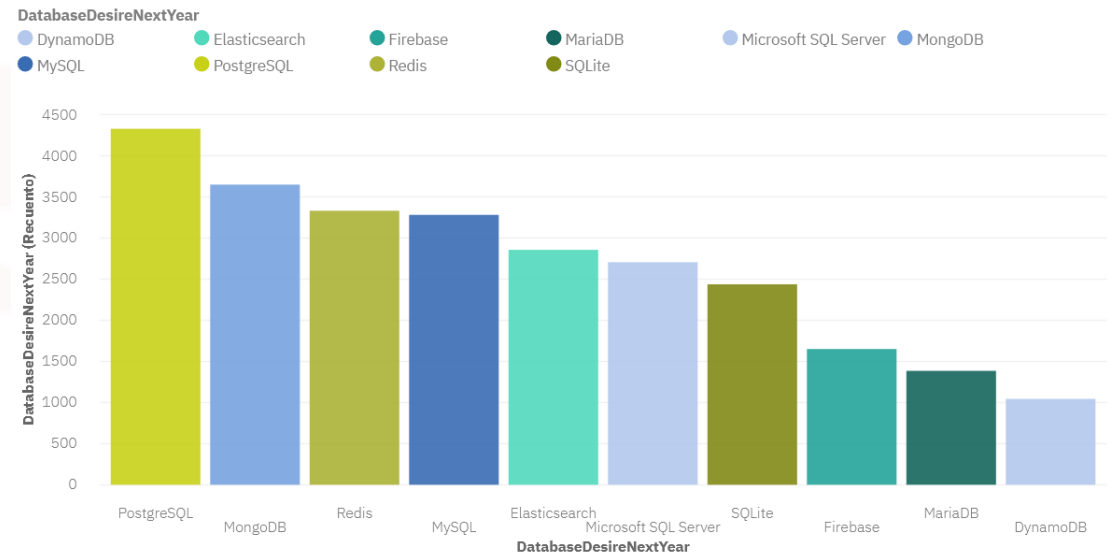
Current Year

Top 10 Databases Used



Next Year

Top 10 Databases Desired to Learn Next Year



DATABASE TRENDS - FINDINGS & IMPLICATIONS

Findings

- Quick rise of PostgreSQL, MongoDB and Redis to the top for next year
- Decreased interest for MySQL and Microsoft SQL Server
- Oracle disappeared from Top 10 for next year

Implications

- Preference for open source databases
- NoSQL databases are becoming more popular
- SQL databases are still required at companies

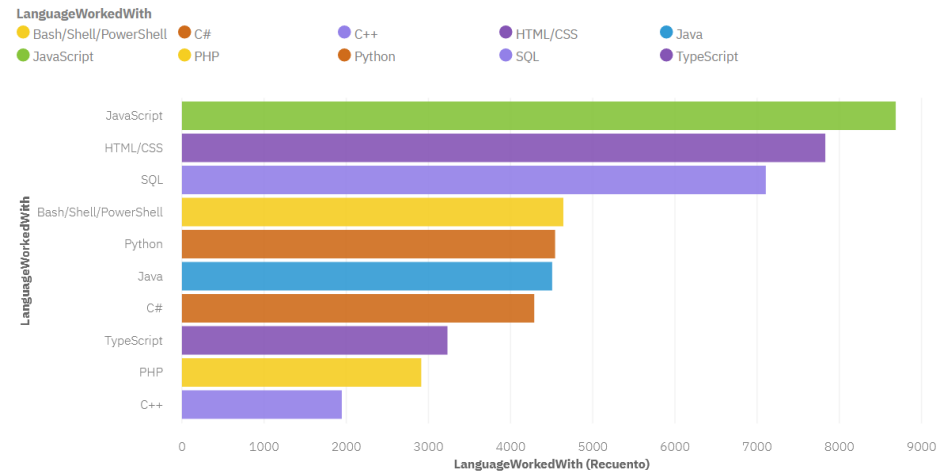
DASHBOARD



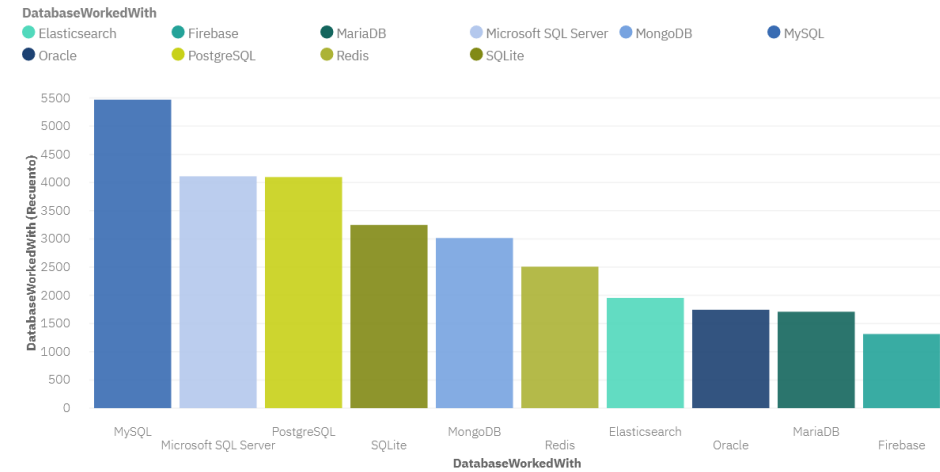
IBM Cognos Analytics Dashboard

DASHBOARD TAB 1

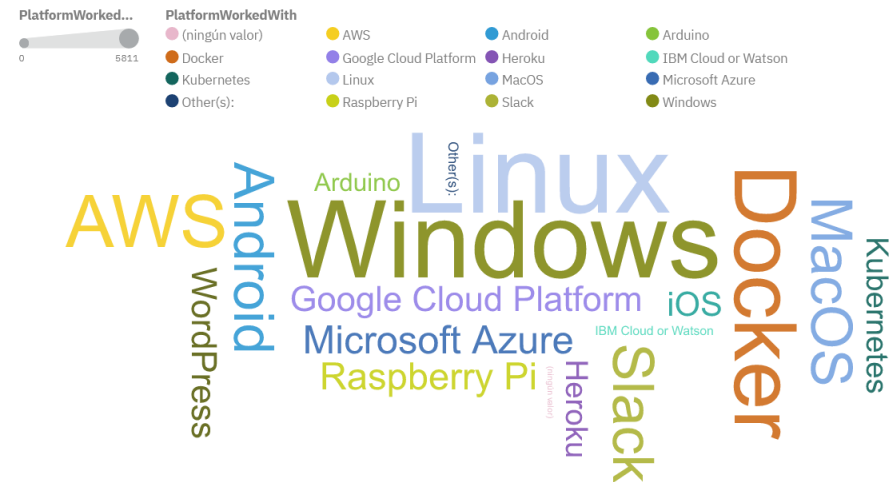
Top 10 Programming Languages Used



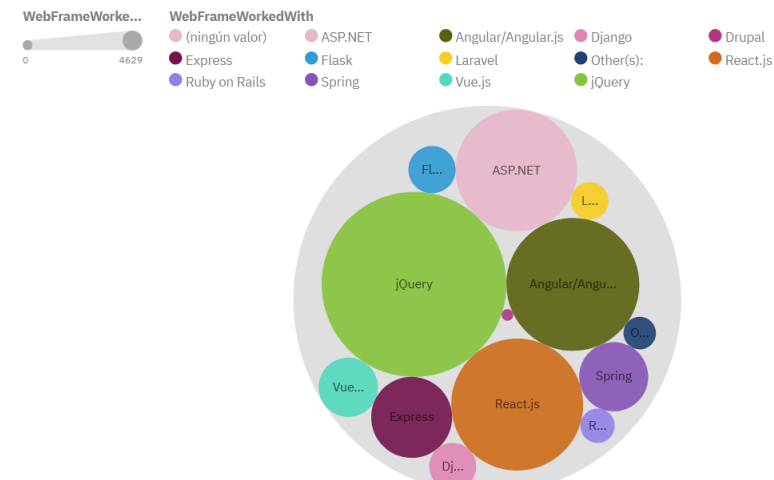
Top 10 Databases Used



Platforms Used

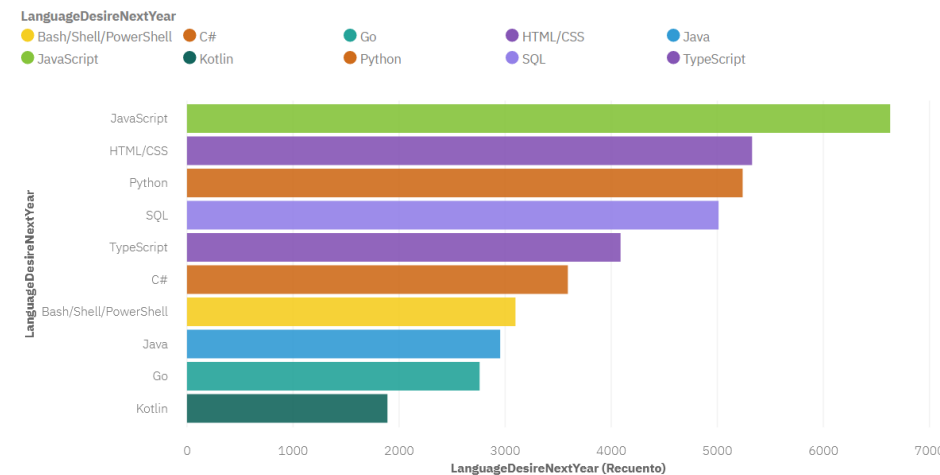


Web Frames Used

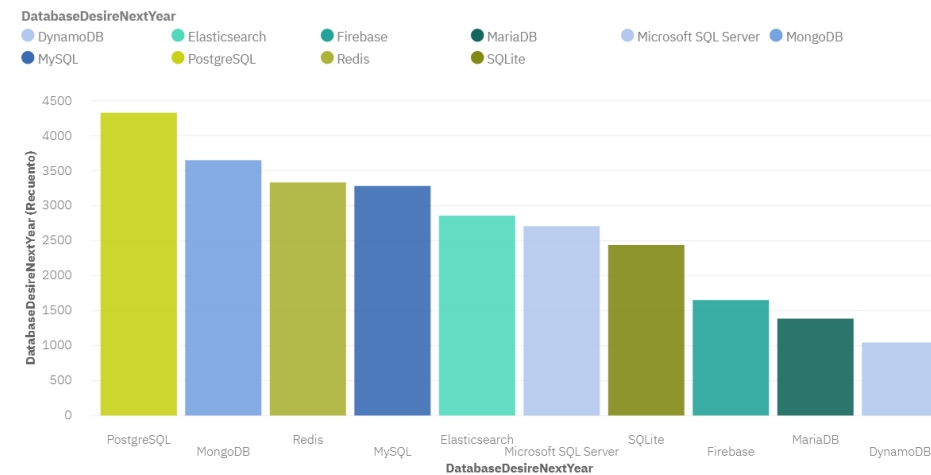


DASHBOARD TAB 2

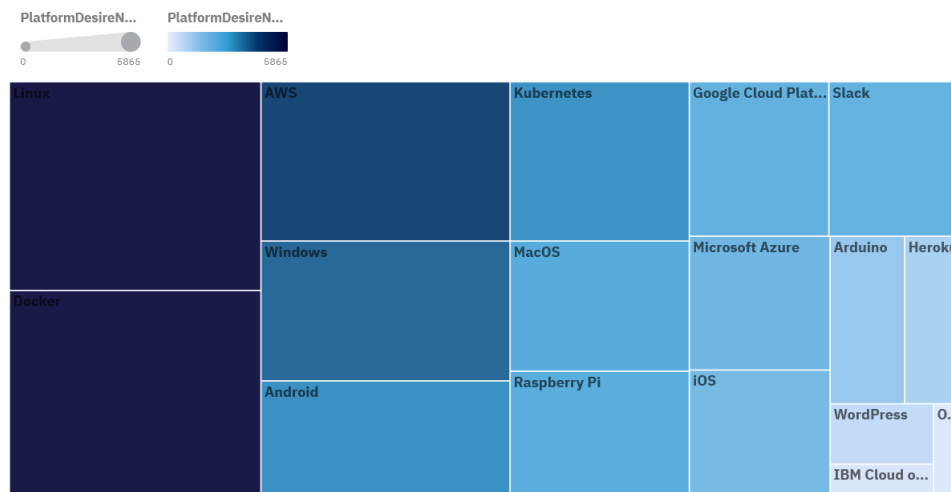
Top 10 Programming Languages Desired to Learn Next Year



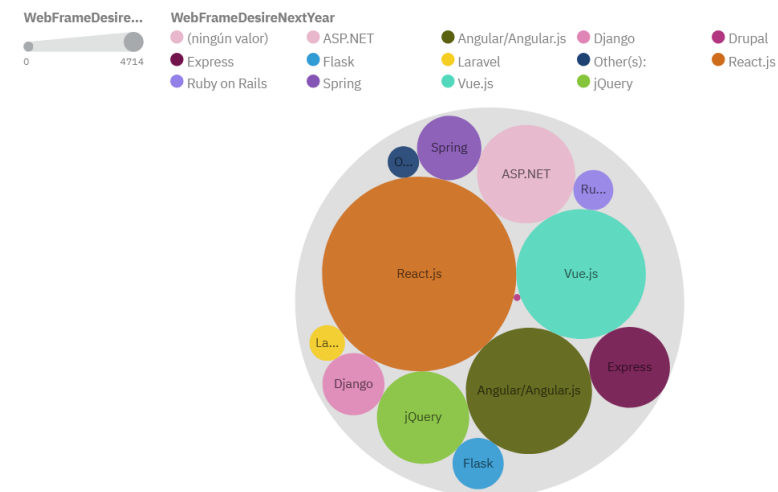
Top 10 Databases Desired to Learn Next Year



Platforms Desired to Learn Next Year



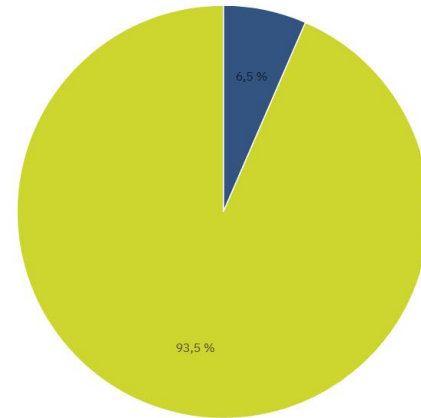
Web Frames Desired to Learn Next Year



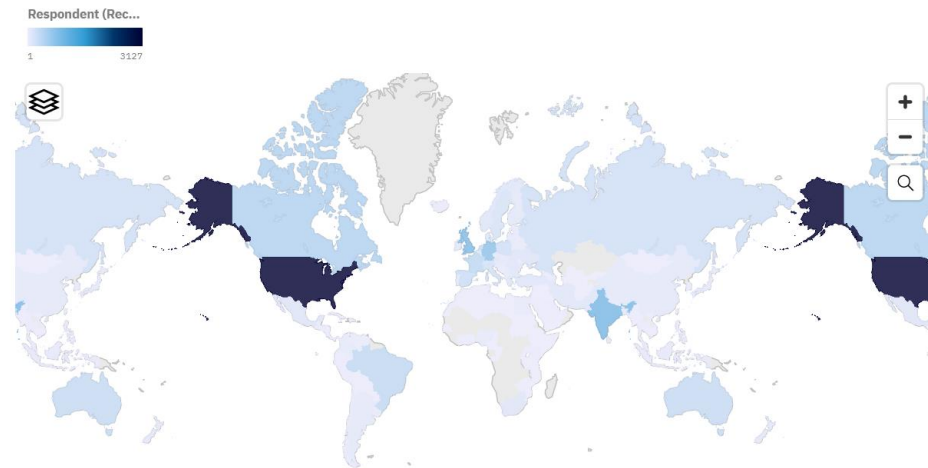
DASHBOARD TAB 3

Respondents by Gender

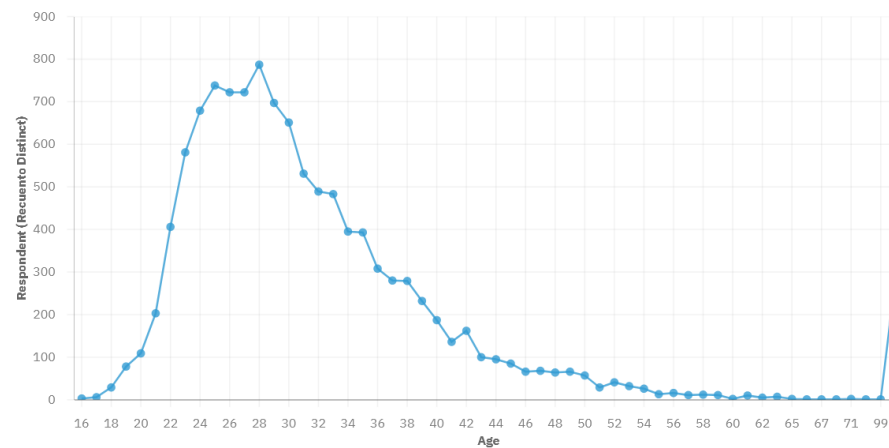
Gender
● Woman ● Man



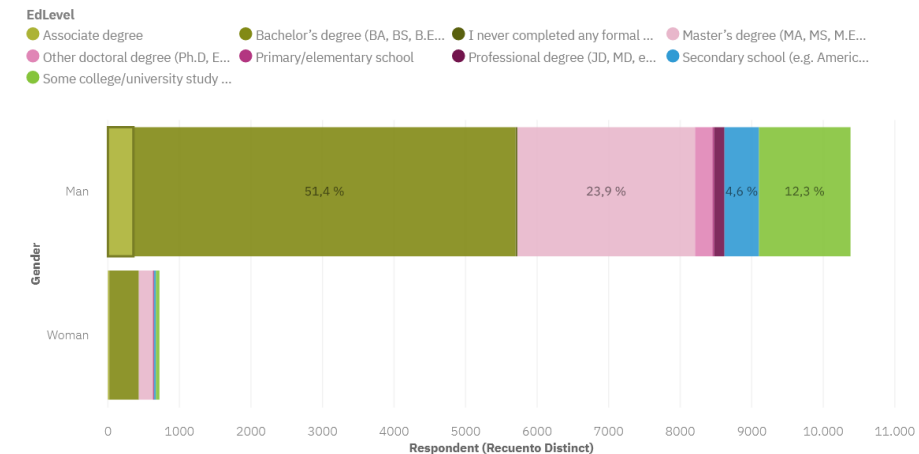
Number of Respondents by Country



Respondents by Age



Respondents by Gender, classified by Formal Education Level



DISCUSSION



OVERALL FINDINGS & IMPLICATIONS

Findings

- Most of the respondents are men between 20 and 30 years old, with a bachelor's degree living in the USA
- Cloud platforms use is growing
- Interest in jQuery decreased for next year
- Interest in Vue.js increased significantly for next year

Implications

- Web based applications development is taking over desktop applications development
- Companies need to be flexible to changes
- Huge gender gap in IT jobs

CONCLUSION

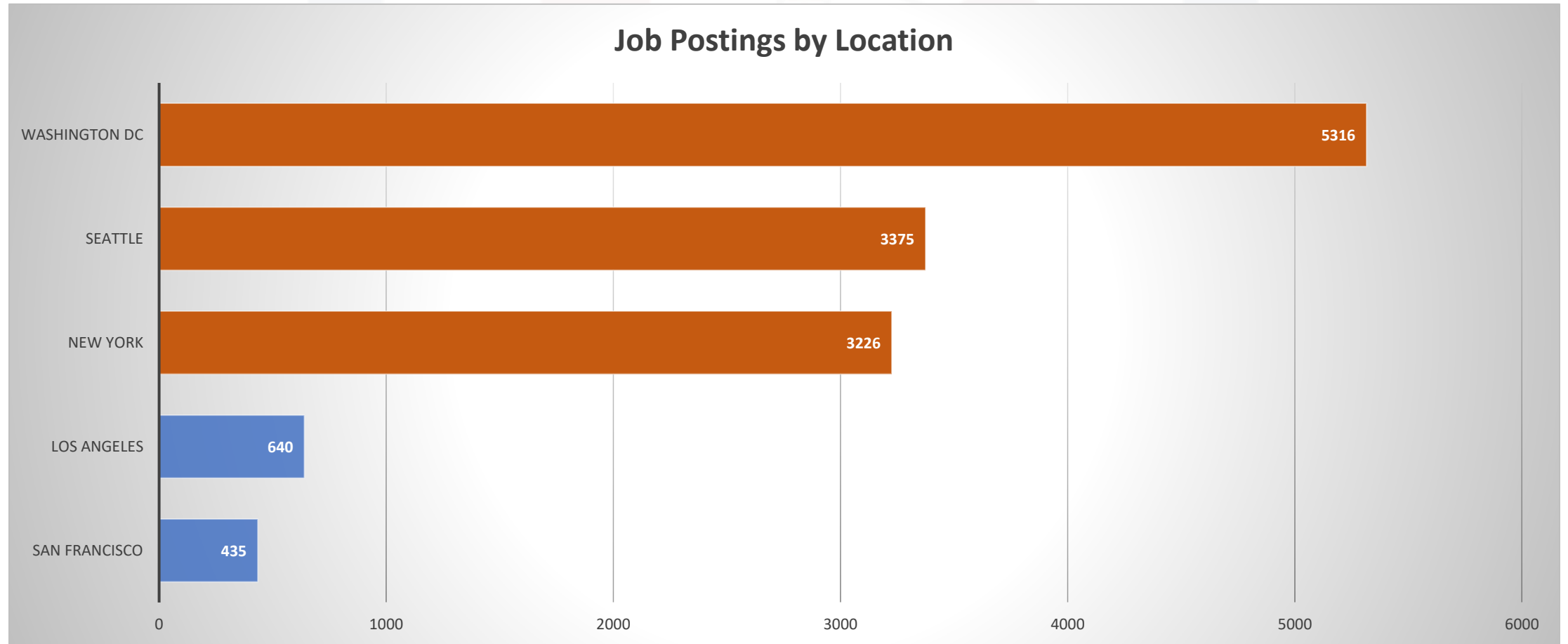


- Web-based languages and non-relational databases are becoming more and more relevant
- There's a need to reduce the gender gap in IT jobs
- Learning python and use of cloud platforms is needed for machine learning and AI development

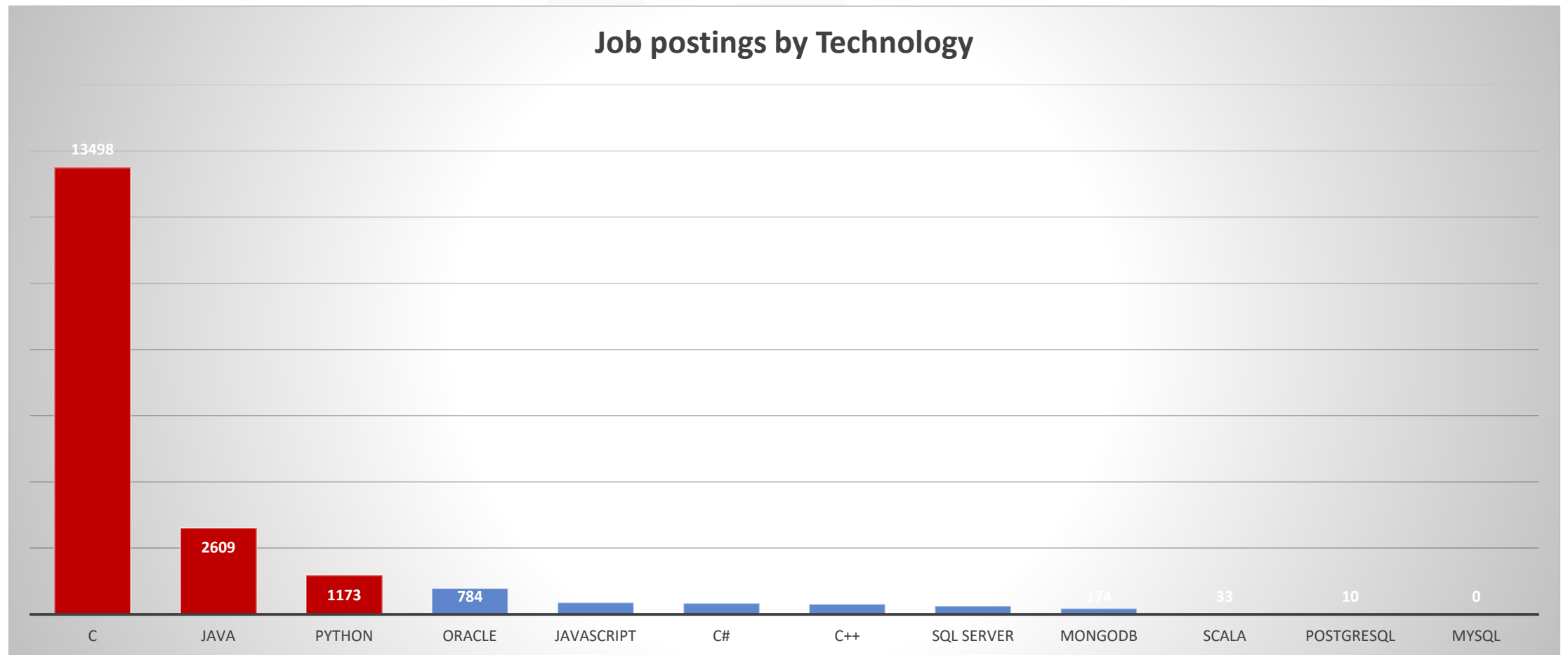
APPENDIX



JOB POSTINGS



JOB POSTINGS



POPULAR LANGUAGES

