Survey Findings

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05/07/2024

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EXECUTIVE SUMMARY

- **Demographics**: Majority of respondents are US-based men (ages 26-40) with Bachelor’s degrees, highlighting a need for targeted recruitment and diversity initiatives.
- **Tech Adoption**: Significant shift towards React for app development, indicating the need for modern JavaScript frameworks and updated tools.
- **Database Preferences**: PostgreSQL and MongoDB are preferred for their flexibility and performance; Elasticsearch is gaining traction for real-time data analysis.
- **Platform Trends**: Linux and Linux-based platforms are overtaking Windows, aligning with the popularity of ReactJS and NodeJS.
- **Programming Languages**: JavaScript remains the most popular language; Python's popularity is growing, while C++ is declining, impacting future skill development and project planning.

INTRODUCTION

- **Survey Overview**: Analysis of recent survey data on tech trends and demographics.
- **Key Areas**: Focus on programming languages, databases, web frameworks, and platforms.
- **Participant Demographics**: Includes gender, location, education levels, and ages.
- **Objective**: Identify trends and derive actionable insights for strategic planning.

METHODOLOGY

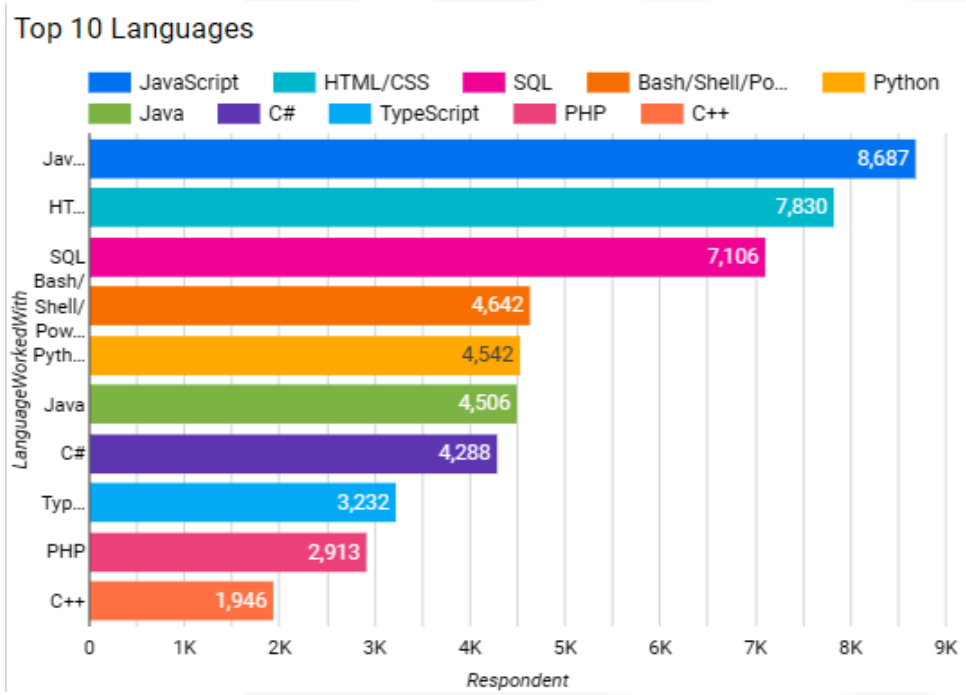
- **Data Analysis Tools**: Utilized Python in Jupyter Lab for data analysis.
- **Visualization**: Presented findings using Google Looker Studio.
- **Dashboard Setup**: Created a 3-page dashboard to display key insights.
- **Process**: Extracted, cleaned, and analyzed survey data to identify trends and implications.
- **Integration**: Combined analytical and visualization tools for comprehensive results presentation.

RESULTS

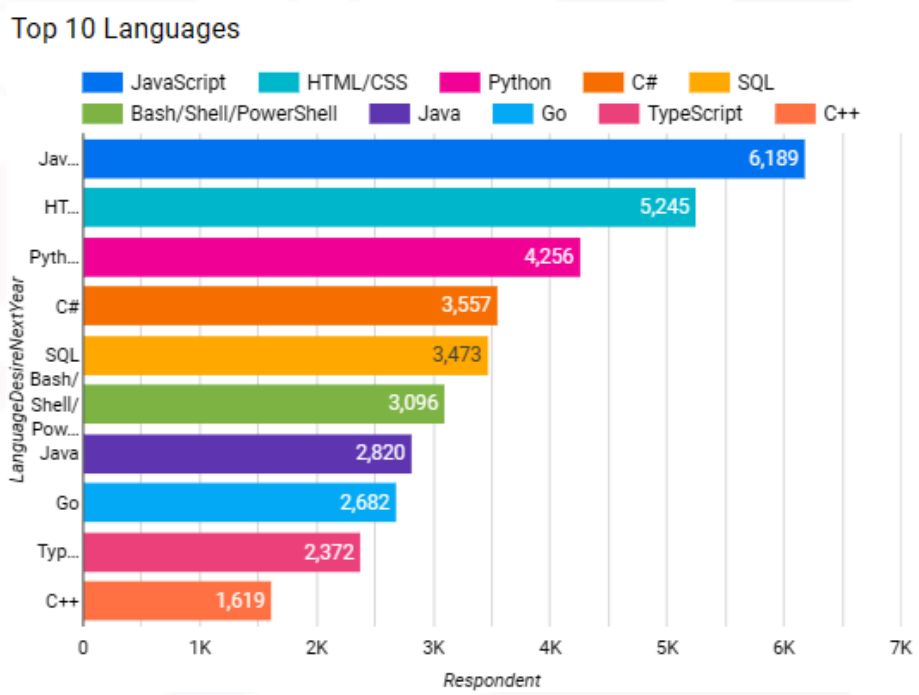
- **Demographics**: Predominantly US-based men (ages 26-40) with Bachelor's degrees.
- **Programming Languages**: JavaScript remains the most popular, Python is growing, C++ is declining.
- **Web Frameworks**: React leads in app development, reflecting a shift towards reactive applications.
- **Databases**: PostgreSQL and MongoDB surpass MySQL and MSSQL, driven by demand for flexibility and performance.
- **Real-Time Data Analysis**: Significant uptake of Elasticsearch for fast data processing.
- **Platforms**: Linux and Linux-based platforms gain popularity over Windows, influenced by ReactJS and NodeJS.

PROGRAMMING LANGUAGE TRENDS

Current Year



Next Year



PROGRAMMING LANGUAGE TRENDS - FINDINGS & IMPLICATIONS

Findings

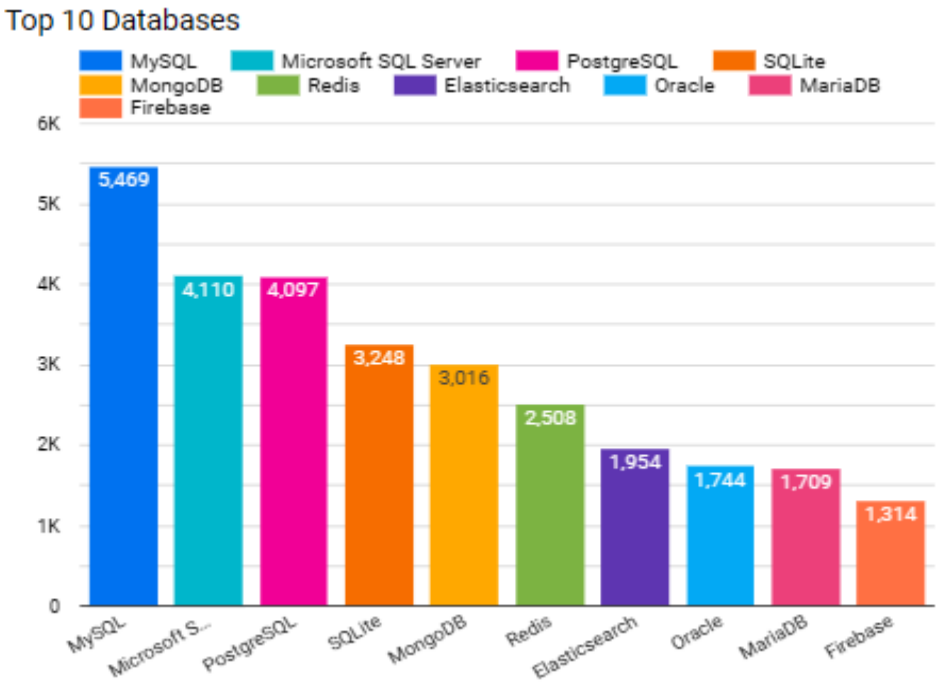
- JavaScript is the most popular language in both years.
- Python holds second place in both years but shows a significant increase in respondents for next year.
- C++ steady decline and most likely dropping off the top 10 list soon.

Implications

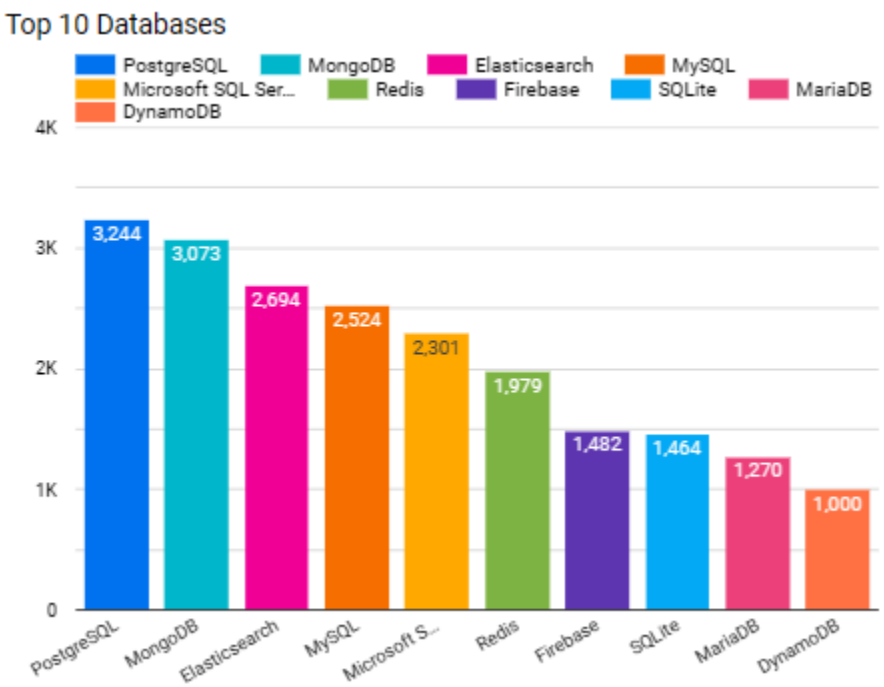
- Prioritize JavaScript in development projects and training programs.
- Expand use of Python, anticipating its growing popularity and applications.
- Gradually phase out C++ in favor of more in-demand languages; reallocate resources.
- Focus on enhancing skills in JavaScript and Python to align with market trends.

DATABASE TRENDS

Current Year



Next Year



DATABASE TRENDS - FINDINGS & IMPLICATIONS

Findings

- PostgreSQL and MongoDB are overtaking MySQL and MSSQL suggests a shift towards flexibility, performance and NoSQL.
- Elasticsearch has had a huge uptake due to high demand in fast/real-time data analysis

Implications

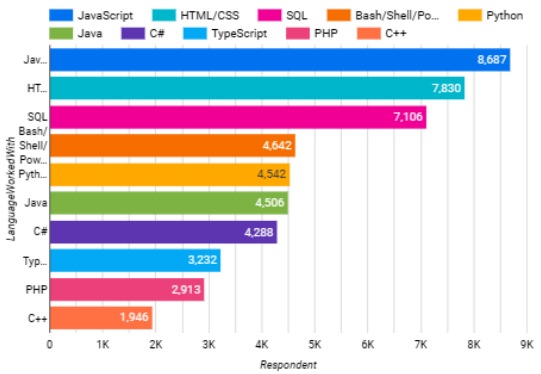
- Emphasize flexible, high-performance databases like PostgreSQL and MongoDB; reconsider reliance on MySQL and MSSQL.
- Ensure databases can handle scalable, complex applications with high data throughput.
- Invest in Elasticsearch for fast, real-time data analysis capabilities.
- Focus on training staff in PostgreSQL, MongoDB, and Elasticsearch to meet current technology demands.

DASHBOARD

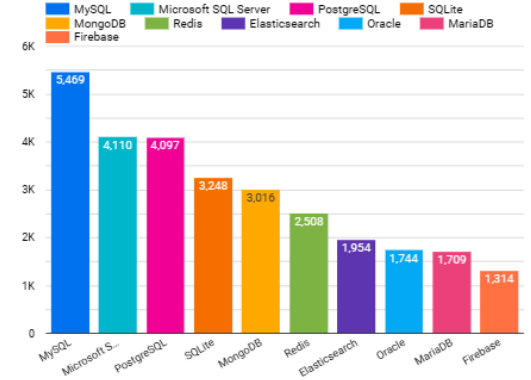
testrepo/Peer-Graded_Assignment.pdf at main · alenb/testrepo (github.com)

DASHBOARD TAB 1

Top 10 Languages

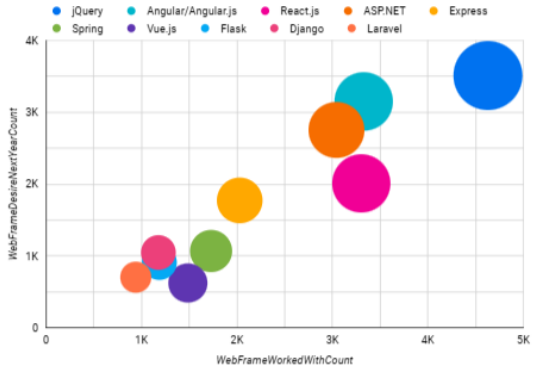


Top 10 Databases



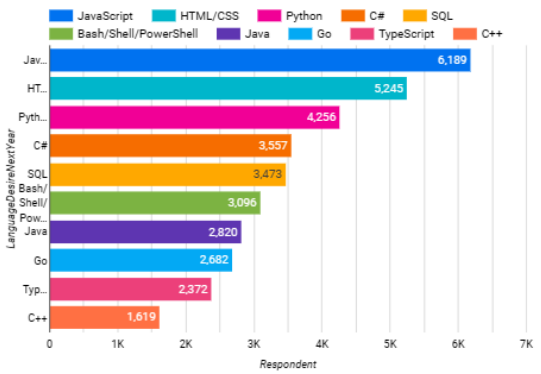
Popular Platform

Top 10 Web Frameworks

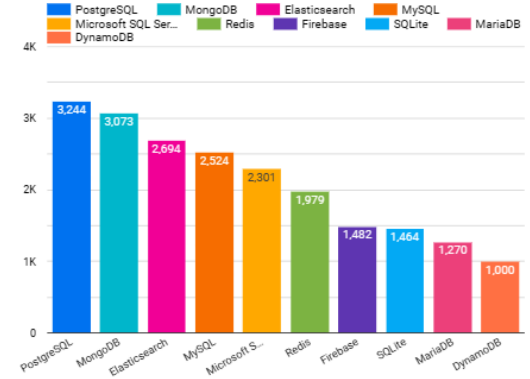


DASHBOARD TAB 2

Top 10 Languages

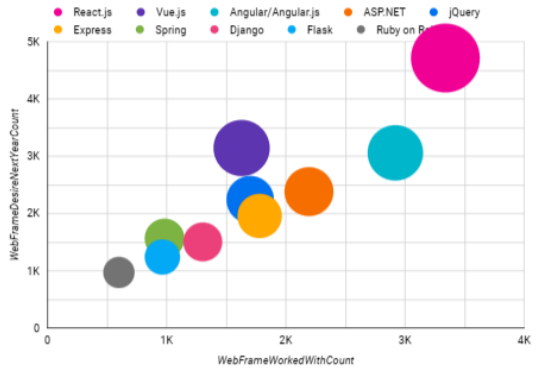


Top 10 Databases



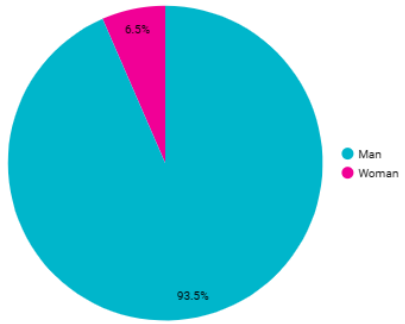
Popular Platform

Top 10 Web Frameworks

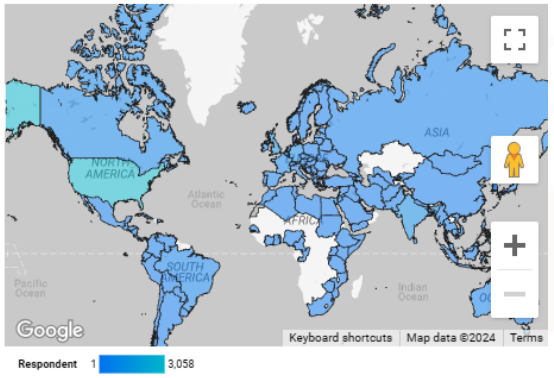


DASHBOARD TAB 3

Respondent classified by Gender

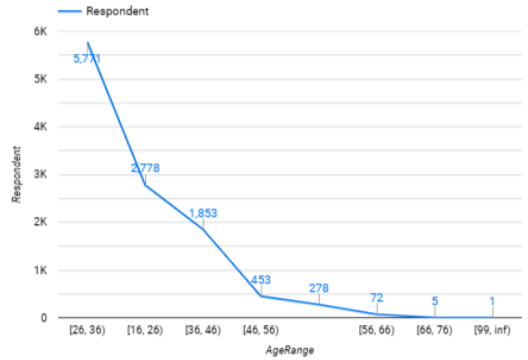


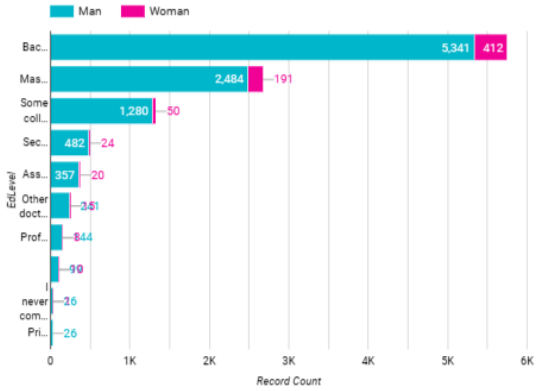
Respondent Count for Countries



Respondent 1 3,058

Respondent Count by Age





OVERALL FINDINGS & IMPLICATIONS

Findings

- Majority of the respondents are men (ages 26-40) with BAs and are located mostly in the US.
- There has been a major shift to more reactive app development with React taking the lead.
- Due to high demand on flexibility and performance, PostgreSQL and MongoDB took over.
- Windows lost significant popularity to Linux and Linux based platforms due to the popularity of ReactJS and NodeJS.

Implications

- Prioritize hiring and training for US-based men (26-40) with BAs; address gender diversity.
- Invest in React and modern JavaScript frameworks; update development tools.
- Migrate to PostgreSQL and MongoDB for flexibility and performance.
- Shift development environments to Linux to align with ReactJS and NodeJS trends.

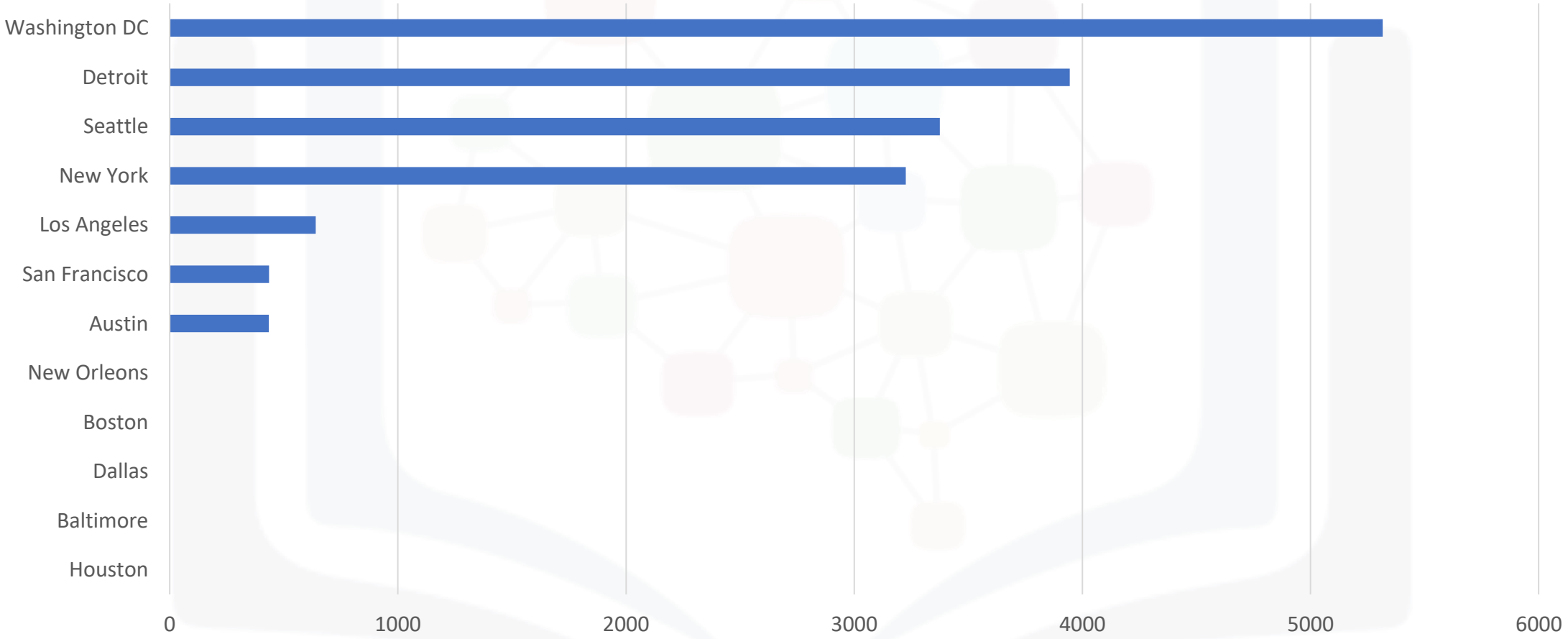
CONCLUSION

- **Demographic Focus**: Target recruitment and training for US-based men (26-40) with BAs, while promoting gender diversity.
- **Modern Development**: Invest in React and JavaScript frameworks, ensuring tools and resources are up-to-date.
- **Database Strategy**: Transition to PostgreSQL and MongoDB for enhanced flexibility and performance; integrate Elasticsearch for real-time data analysis.
- **Platform Shift**: Optimize development environments for Linux to support modern tech stacks like ReactJS and NodeJS.
- **Language Trends**: Prioritize JavaScript and Python in projects and skill development; phase out C++ in favor of more popular languages.

APPENDIX

- Nothing additional was needed to be analyzed.

JOB POSTINGS



POPULAR LANGUAGES