Stack Overflow Developers Survey Data Analysis

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Date -> 21-01-2024

OUTLINE

- Executive Summary
- Introduction
- Methodology
- Results
  - Visualization – Charts
  - Dashboard
- Discussion
  - Findings & Implications
- Conclusion
- Appendix

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EXECUTIVE SUMMARY

- Data contextualization and analysis goal.

- Methodology Description
  - Data Gathering
  - Data Analysis
  - Data visualizations

- Results presentation supported with graphs and trends.

- Discussion of overall findings and implications regarding the results previously exposed.

- Final conclusions of the carried-out research.

INTRODUCTION

- Stack Overflow's Developer Survey is one of the largest and most comprehensive surveys in the tech industry, providing insights into the preferences, practices, and opinions of developers worldwide.

- Results don't represent everyone in the developer community evenly.

- Nearly 90,000 developers participate in survey.

- Trends to predict where the developers are going.

- Characterization of developers around the globe.

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METHODOLOGY

- Collect survey data & explore its content
  - Web Scraping
  - APIs.
  - Request library.
- Data Wrangling
- Exploratory data analysis
  - Analyzing data distribution.
  - Handling outliers.
  - Correlations.
- Data Visualization
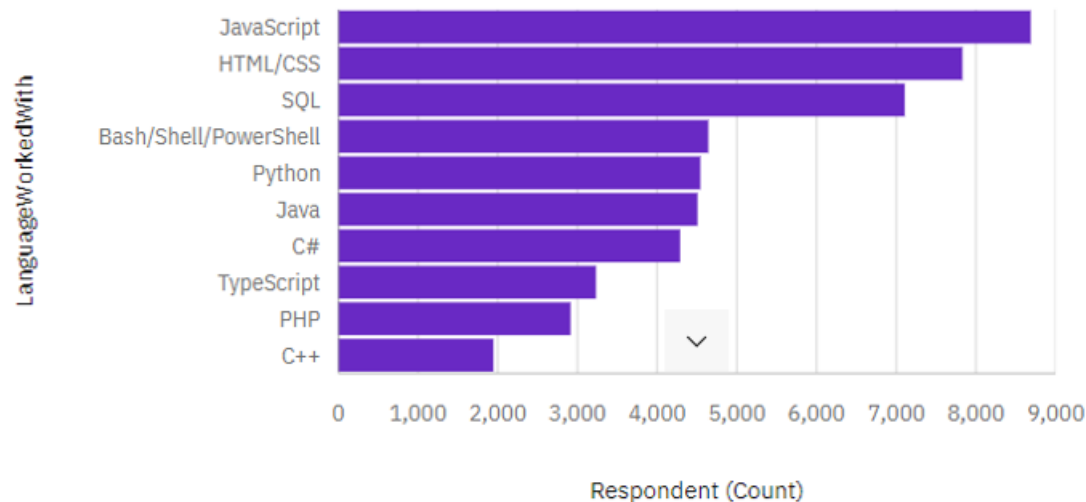 - Highlight distribution of data, relationships, the composition and comparison of data.
- Dashboards

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RESULTS

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PROGRAMMING LANGUAGE TRENDS

Current Year

top 10 programming languages this year

Next Year

top 10 programming languages next year

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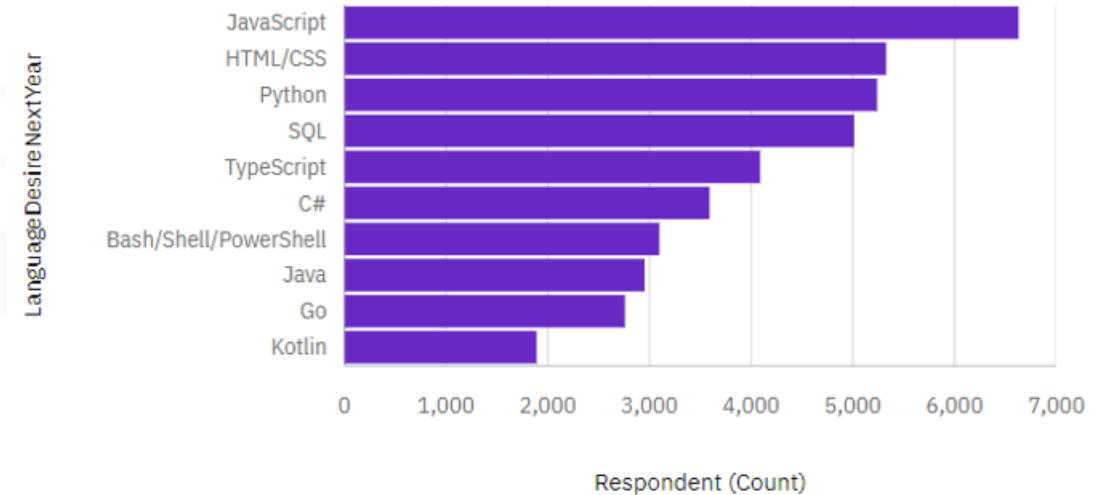
PROGRAMMING LANGUAGE TRENDS - FINDINGS & IMPLICATIONS

Findings

- JavaScript remains the top language, but it experienced a slight decrease next year

- Python is getting more popular
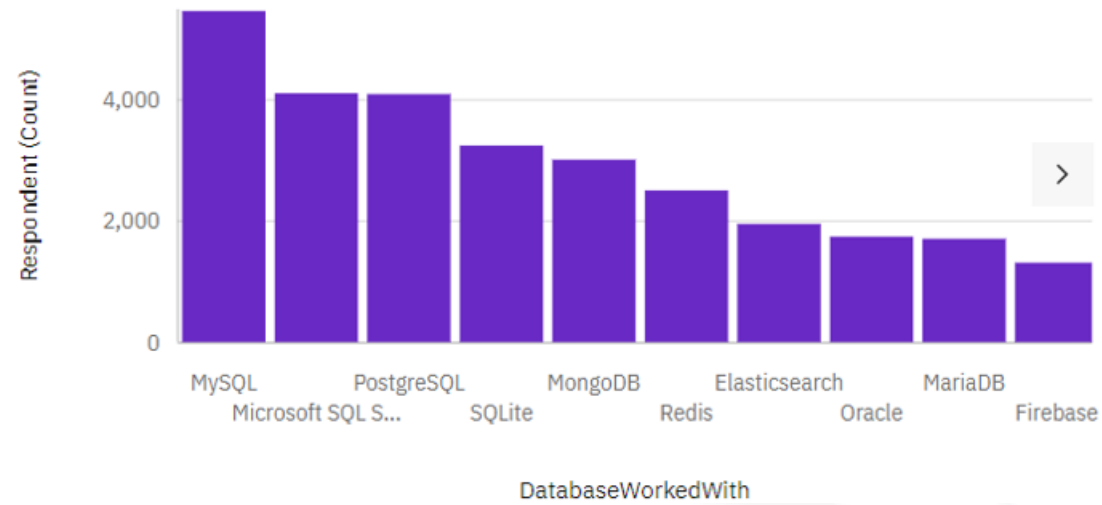
- Go and Kotlin entered top 10

Implications

- TypeScript is replacing JavaScript related jobs

- Python is in high demand

- App development is gaining prominence(Go and Kotlin)
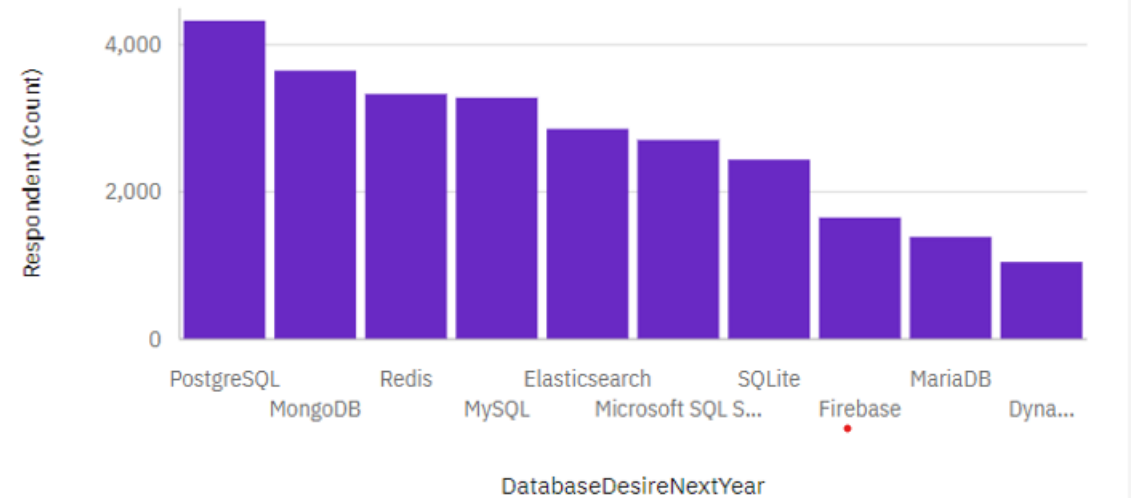
DATABASE TRENDS

Current Year

top 10 databases for the current year

Next Year

top 10 databases for the next year

DATABASE TRENDS - FINDINGS & IMPLICATIONS

Findings

- MySQL as most used database.
- Lack of interest in Microsoft SQL Server and SQLite.
- •Increasing interest in PostgreSQL and MongoDB.
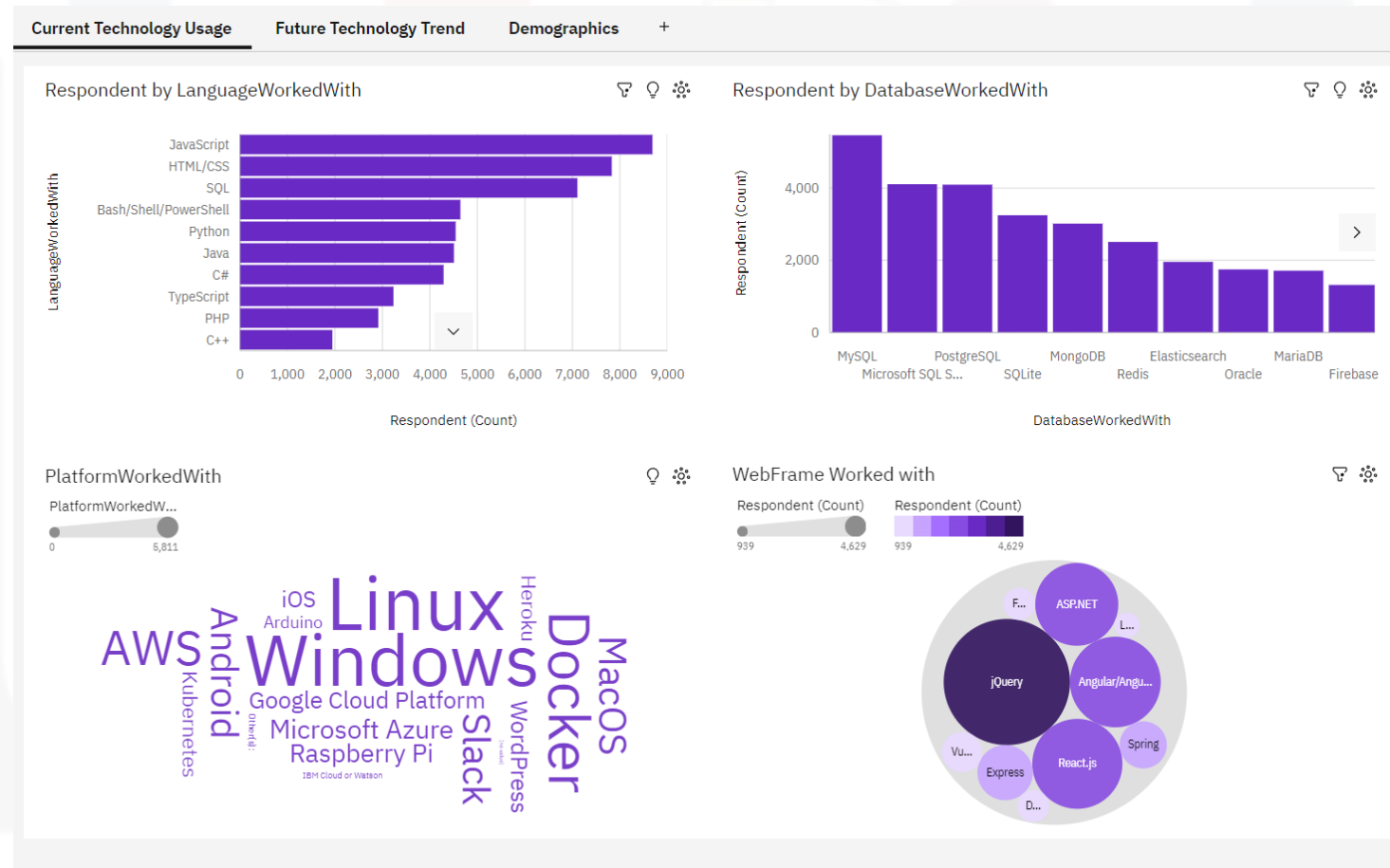
Implications

- Microsoft SQL Server and SQLite losing ground in the market.
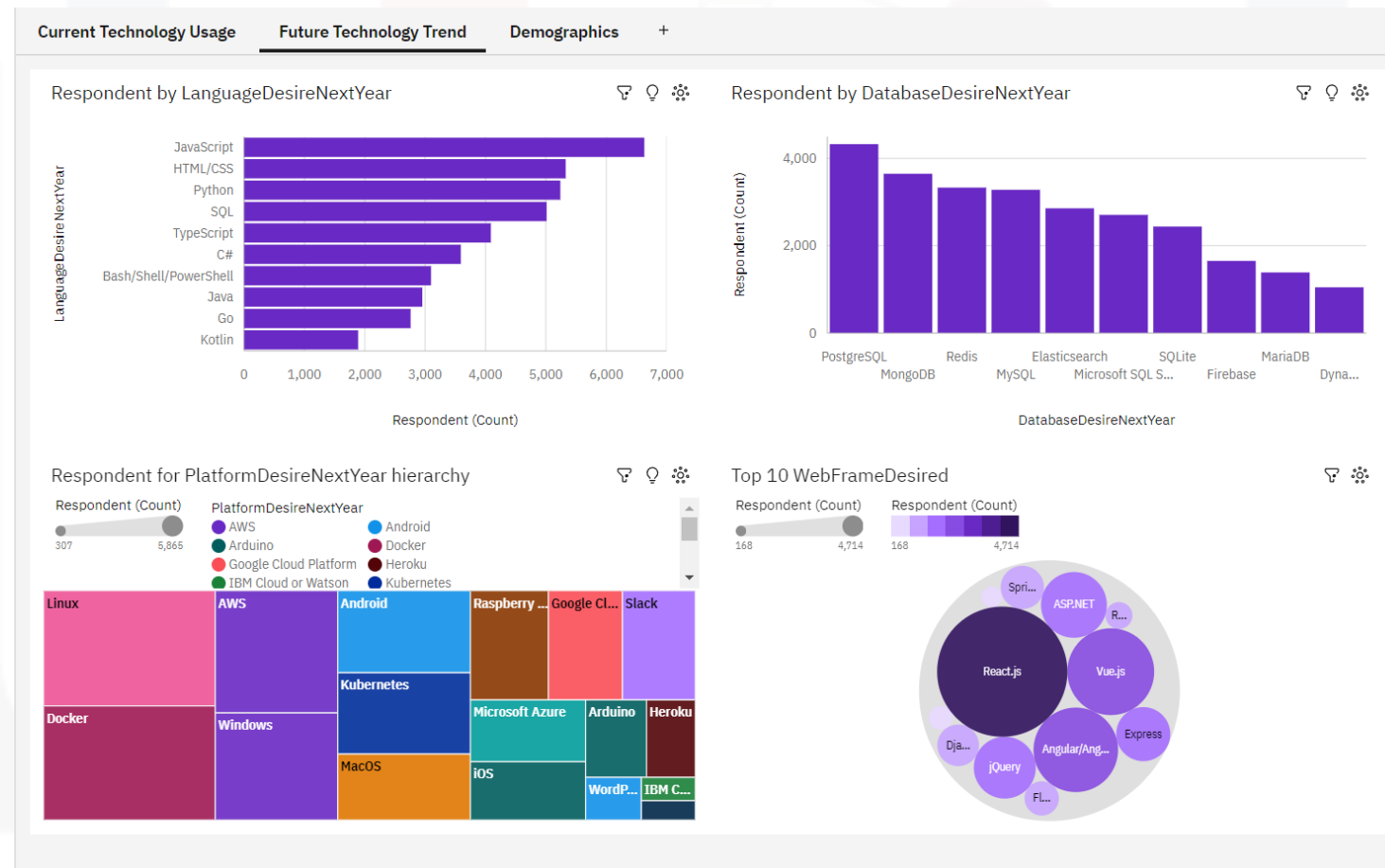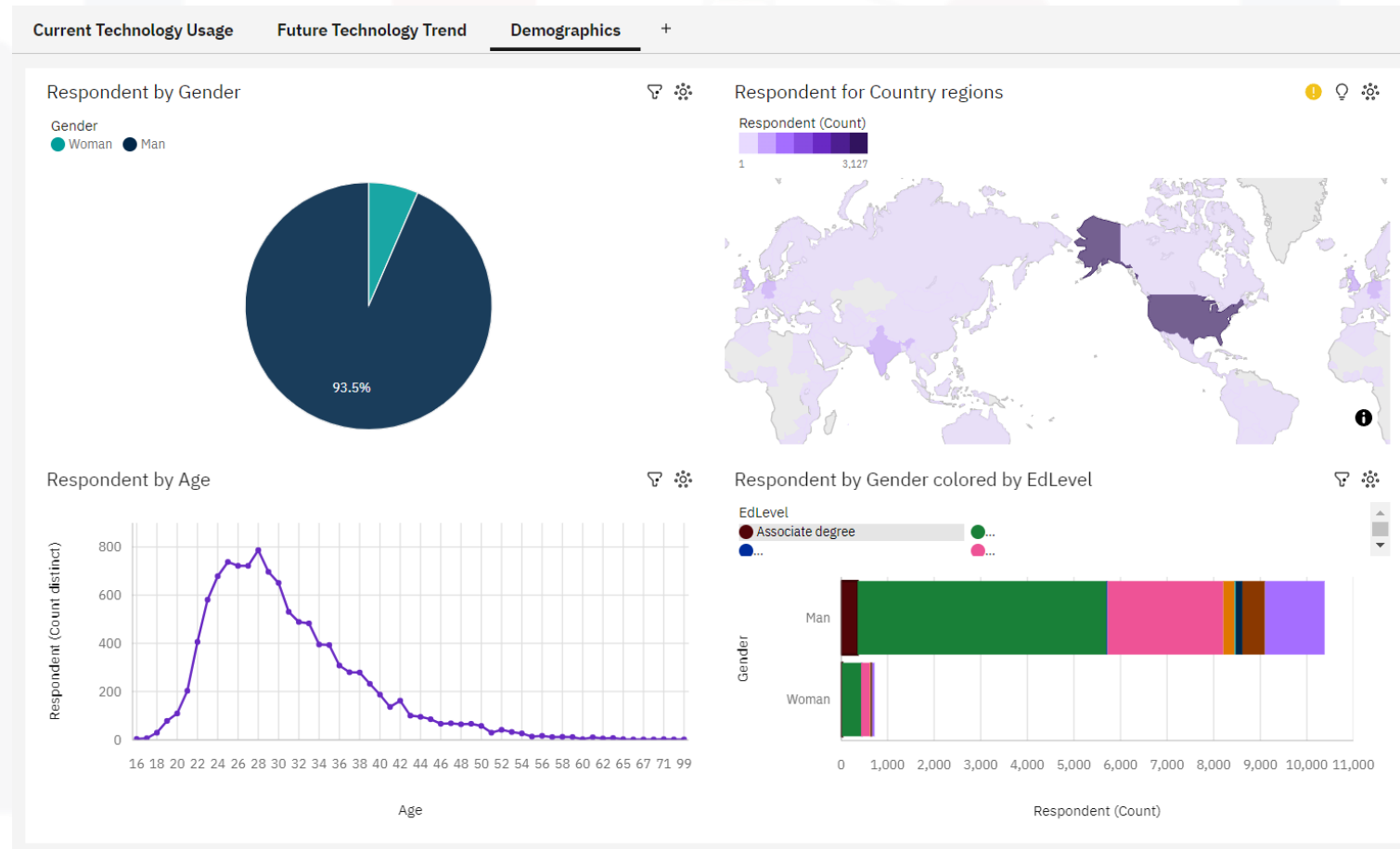- PostgreSQL and MongoDB establishment in the market.

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DASHBOARD

https://github.com/Nimish01-01/IBM-Capstone-Project

DASHBOARD TAB 1

DASHBOARD TAB 2

DASHBOARD TAB 3

DISCUSSION

OVERALL FINDINGS & IMPLICATIONS

Findings

- JavaScript widely used and TypeScript getting popular.

- Over 90% young male developers.

- Developers mostly located in developed countries.
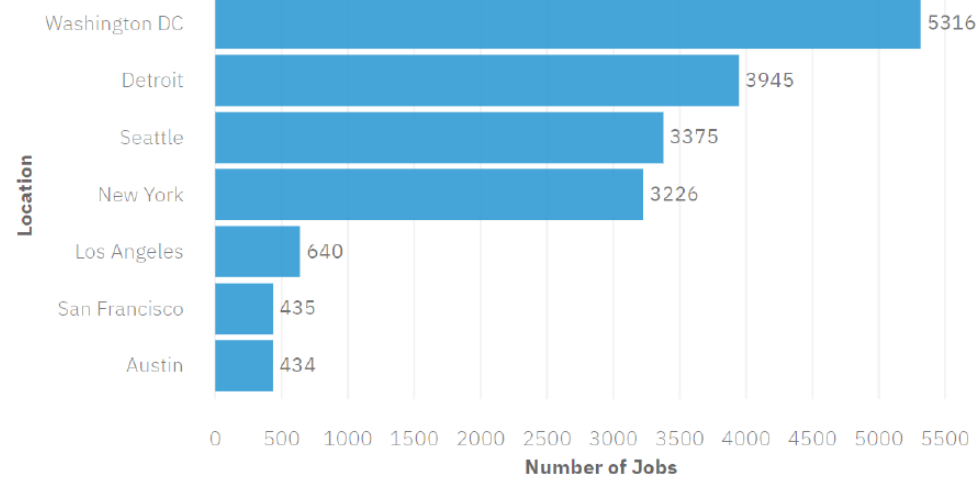
Implications

- JavaScript and TypeScript web frames gaining followers.

- Global polarization of developer's location and gender.

- Young developers without postgrad studies on its majority.

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CONCLUSION

- Developers are people with very marked characteristics.

- A good idea of popularity trends of different tools, platforms and languages can be obtained.

- There is a job to be done to spread accessibility of this labor market to countries in development.

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JOB POSTINGS

POPULAR LANGUAGES