Stack Overflow Survey Analysis

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08/05/2924

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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 annual Developer Survey is the largest and most comprehensive survey of people who code around the world.

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

- Nearly 90,000 developers.

- 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.
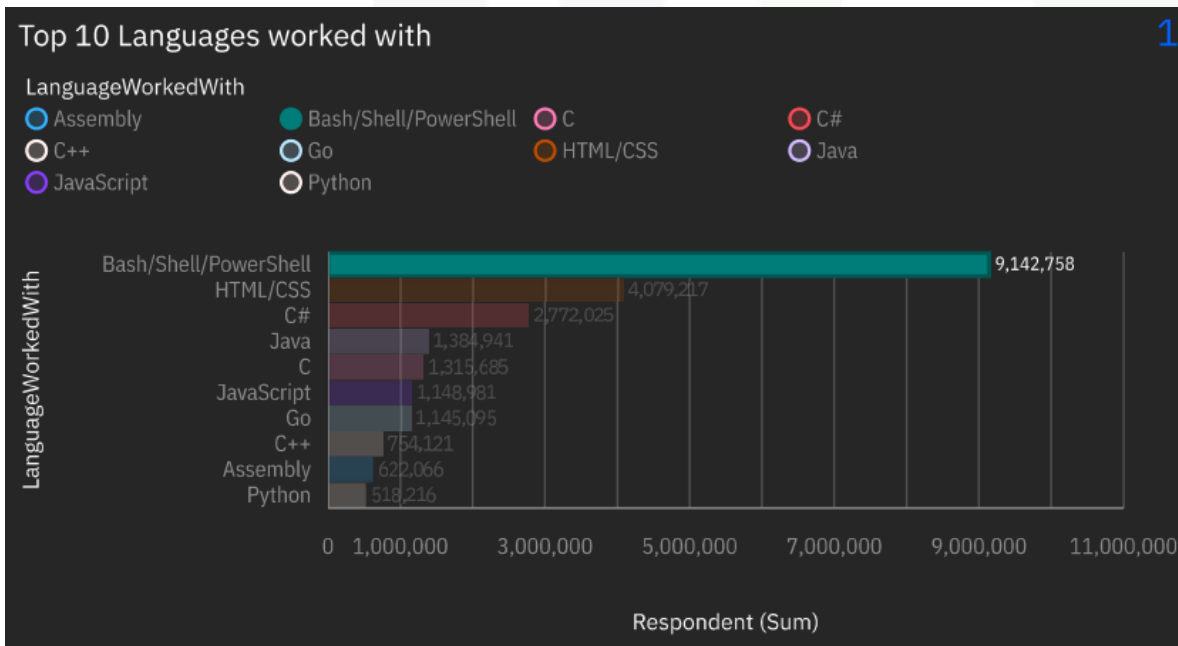- Dashboards

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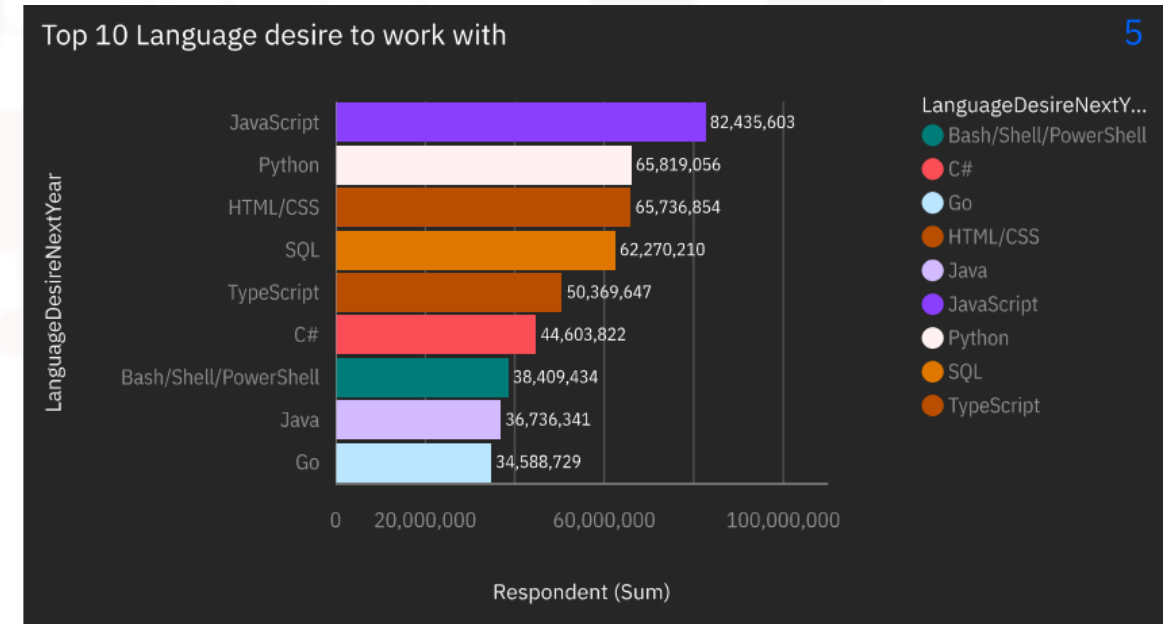
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RESULTS

PROGRAMMING LANGUAGE TRENDS

Current Year

Next Year

PROGRAMMING LANGUAGE TRENDS – FINDINGS & IMPLICATIONS

Findings

- Bash/shell/powershell is leading currently
- Python fastest-growing.
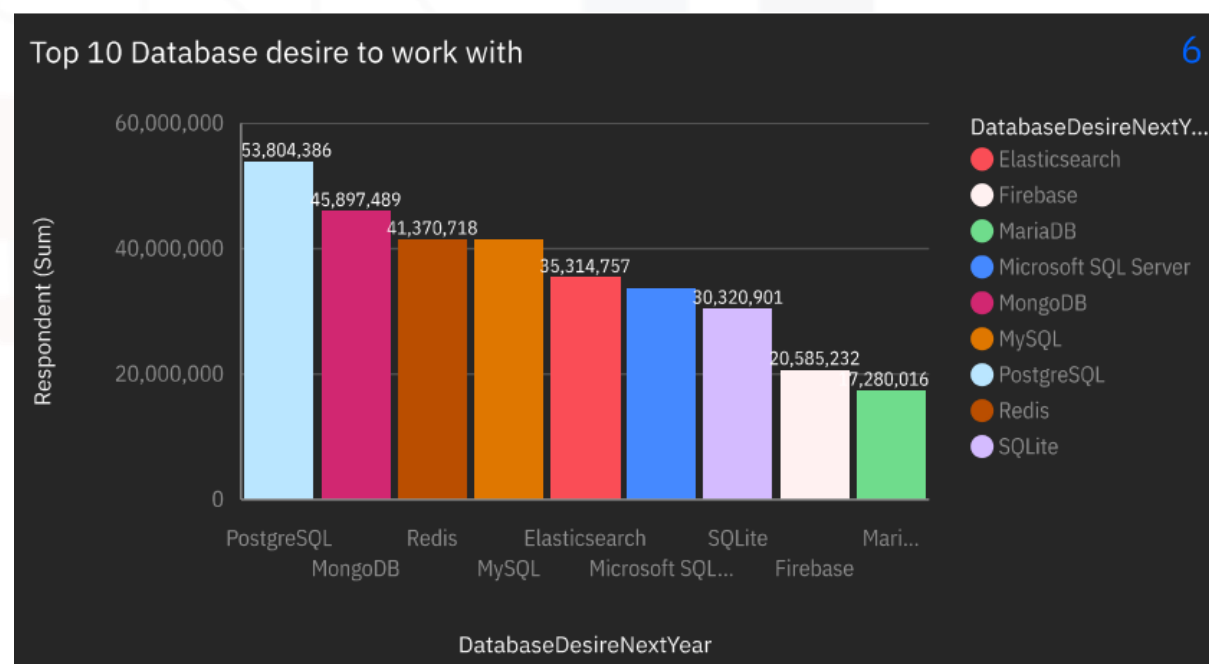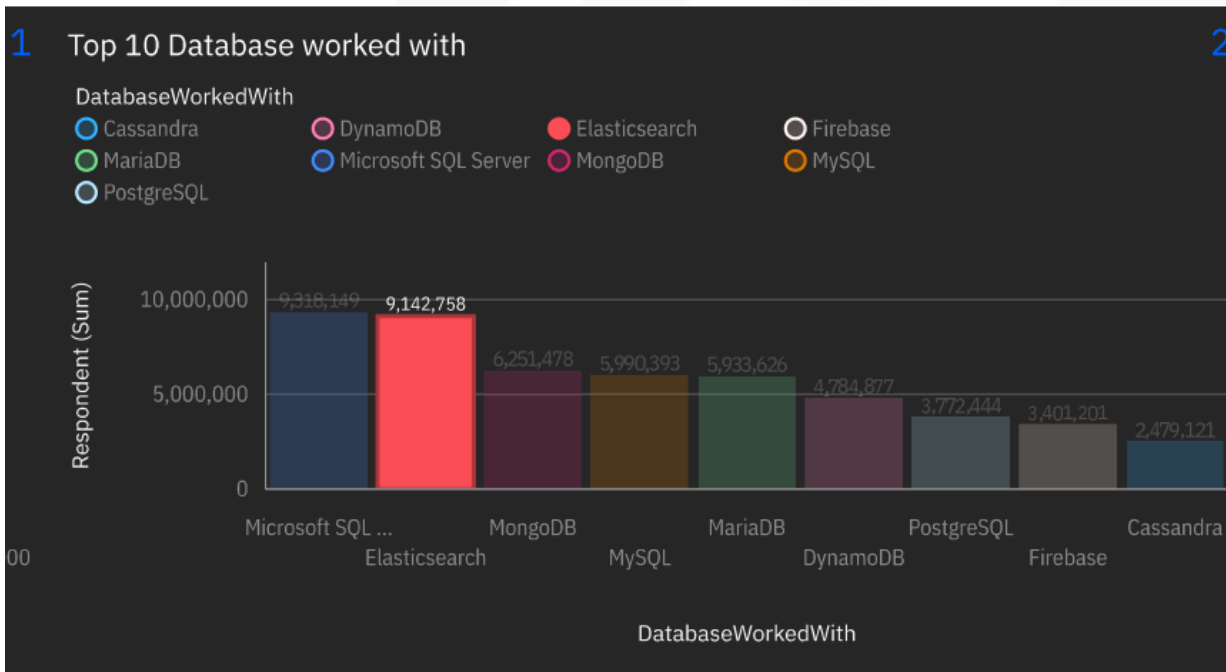- Html/ CSS has solid foundation

Implications

- Possible developers migration from JavaScript to TypeScript.

DATABASE TRENDS

Current Year

Next Year

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DATABASE TRENDS - FINDINGS & IMPLICATIONS

Findings

- Microsoft SQL as most used database then ElasticSearch.

- Lack of interest in Casssandra and Fire-Base

- Increasing interest in PostgreSQL and MongoDB.

Implications

- Microsoft SQL Server and ElasticSearch losing ground in the market.

- PostgreSQL and MongoDB establishment in the market.

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DASHBOARD

https://us3.ca.analytics.ibm.com/bi/?perspective=dashboard&pathRef=.my_folders%2FCoursera&action=view&mode=dashboard&subView=model000001912086f582_00000000
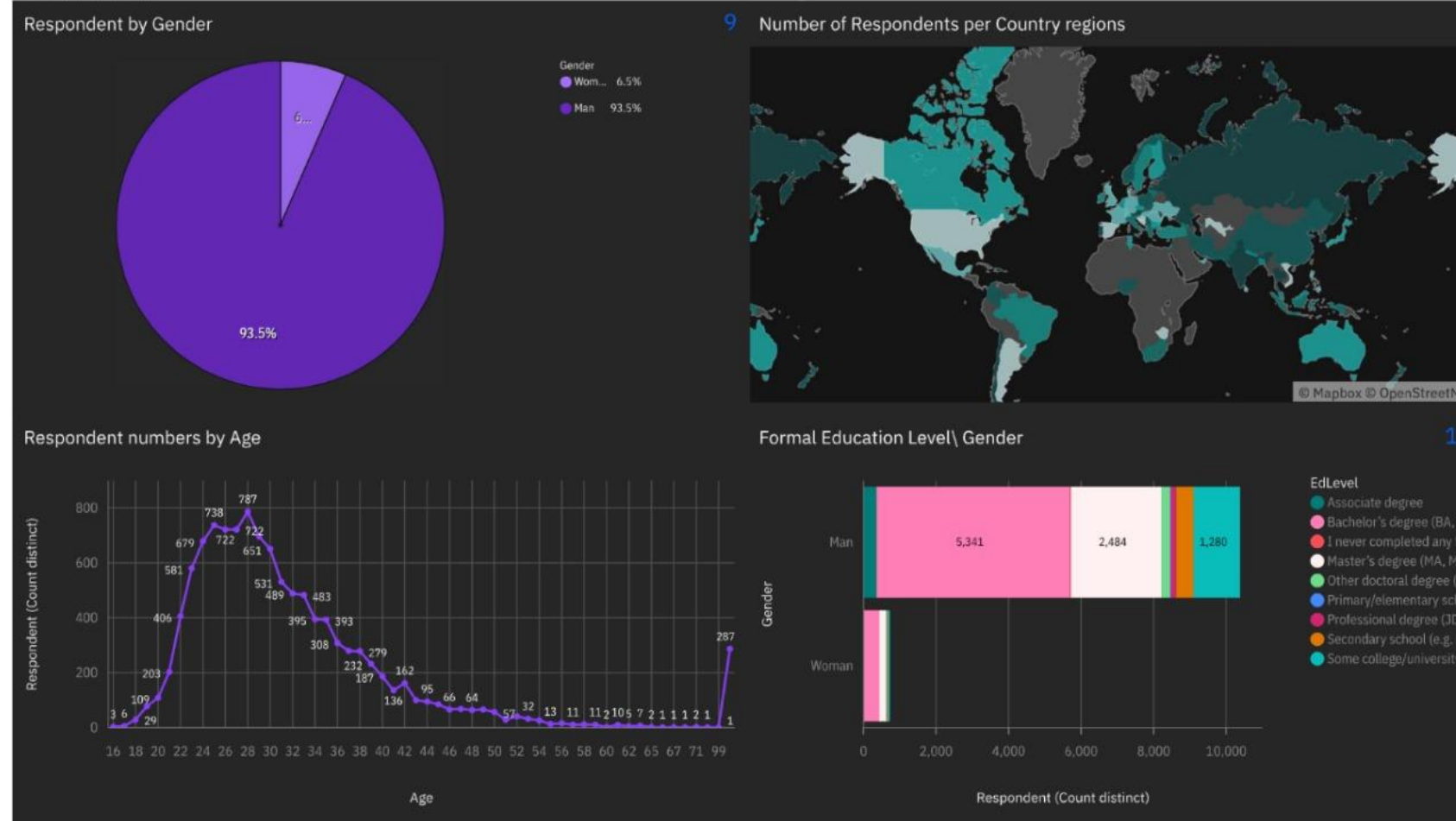
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CURRENT TECHNOLOGY USAGE
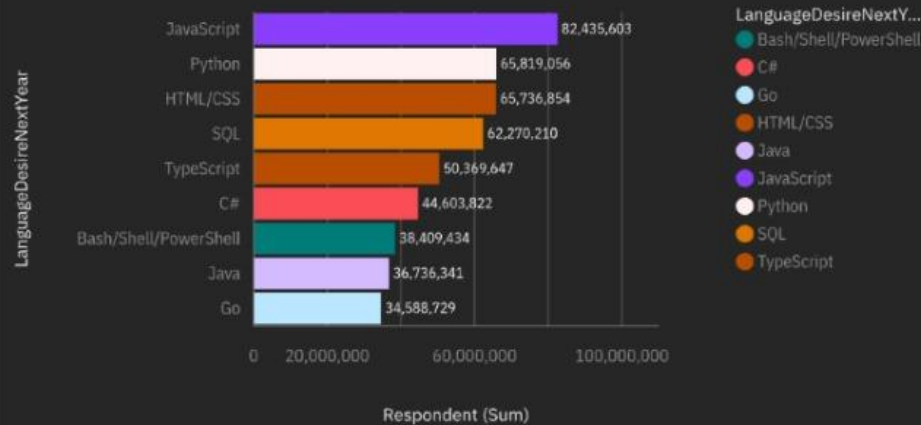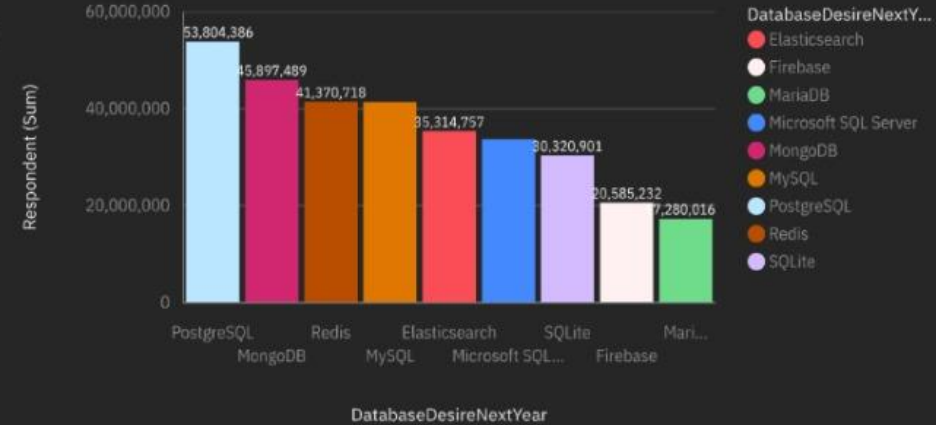
FUTURE TECHNOLOGY TREND

DEMOGRAPHICS
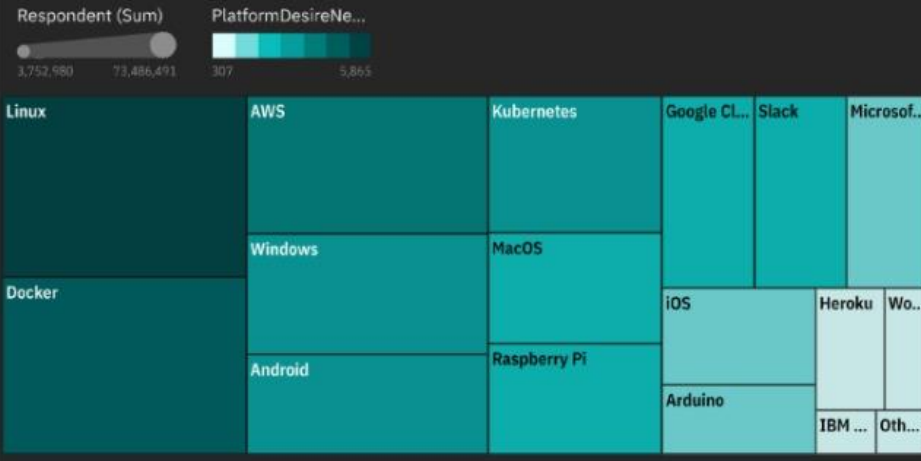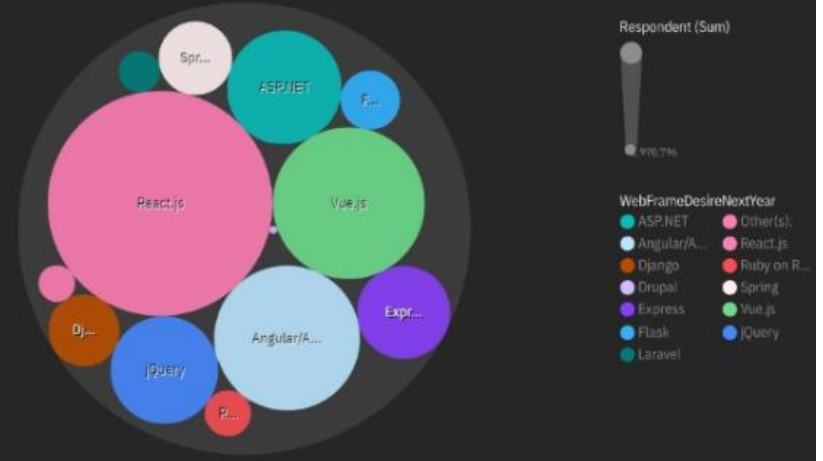
DISCUSSION

OVERALL FINDINGS & IMPLICATIONS

Findings

- Poweshell and 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 developers location and gender.
- Young developers without postgrad studies on its majority.

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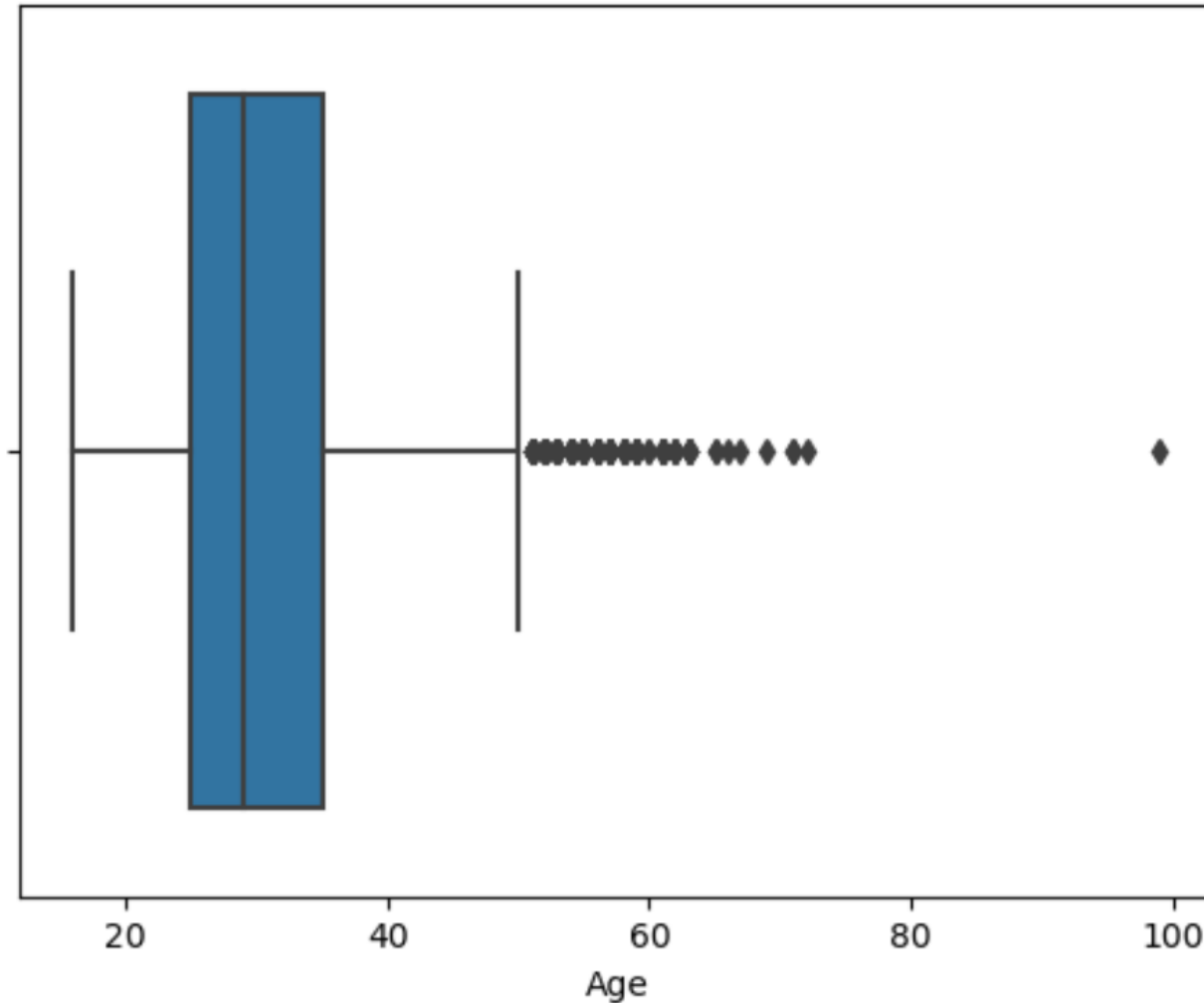
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CONCLUSION

- Developers are people with very marked characteristics.

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

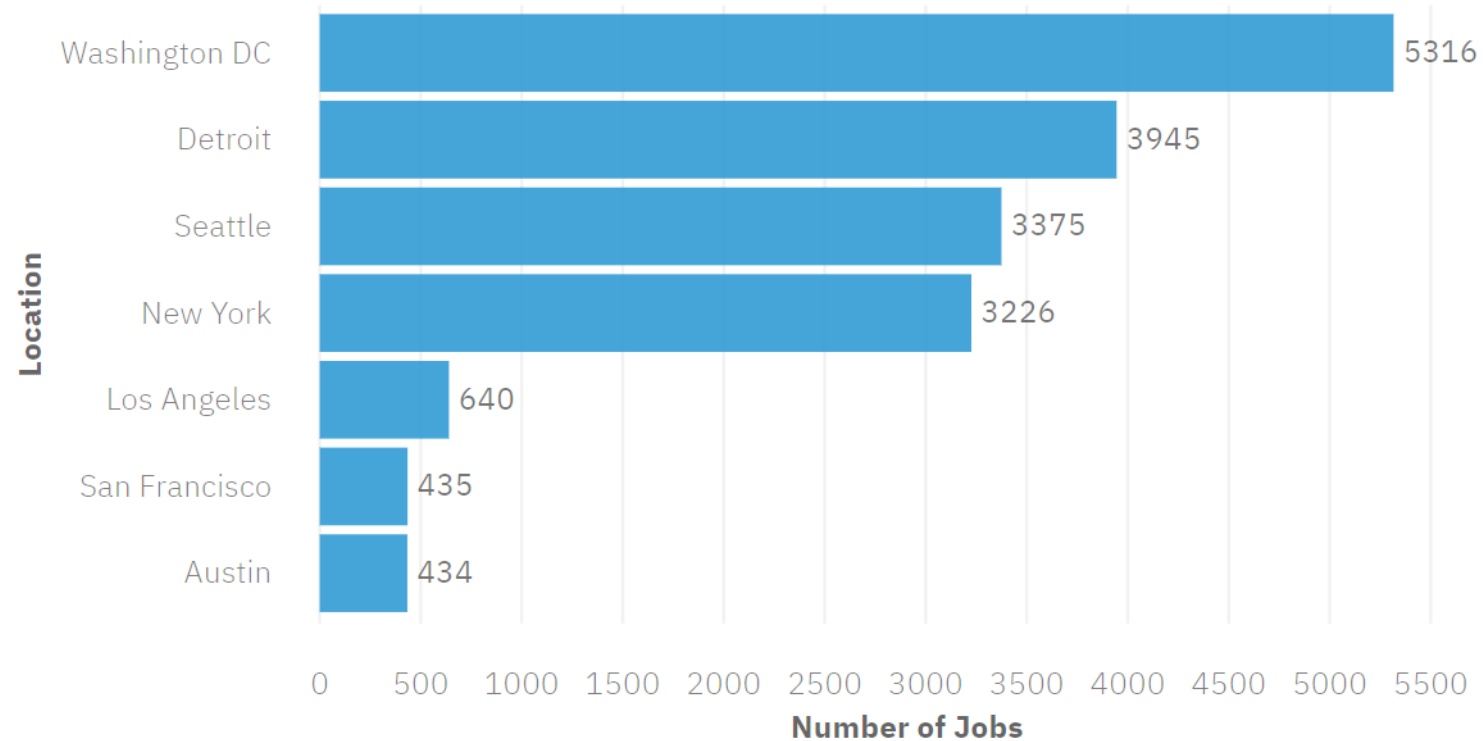- There is a job to be done to spread accessibility of this labor market to countries in development.

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APPENDIX

AGE DISTRIBUTION BOXPLOT

JOB POSTINGS

POPULAR LANGUAGES