



Identifying Programming Skills and Trends

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OUTLINE



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

EXECUTIVE SUMMARY



- Data Context and analysis goal
- Methodology
 - Data collection and wrangling
 - Data analysis
 - Data visualizations
- Results
- Dashboard
- Discussion
- Conclusion
- Appendix

INTRODUCTION



- Stack Overflow's annual developer survey is one of the largest and most comprehensive survey for coding around the world.
- Results are not representative of the whole developer population.
- Almost 90,000 developers completed the survey.
- The survey tries to understand trends in the community of developers.

METHODOLOGY



- Data collection
 - APIs.
 - Web Scraping.
- Data Wrangling
- Exploratory Data Analysis
 - Analyzing distribution.
 - Handling outliers.
 - Correlation.
- Data Visualization
 - Highlighting findings of the data analysis.
 - Dashboards.

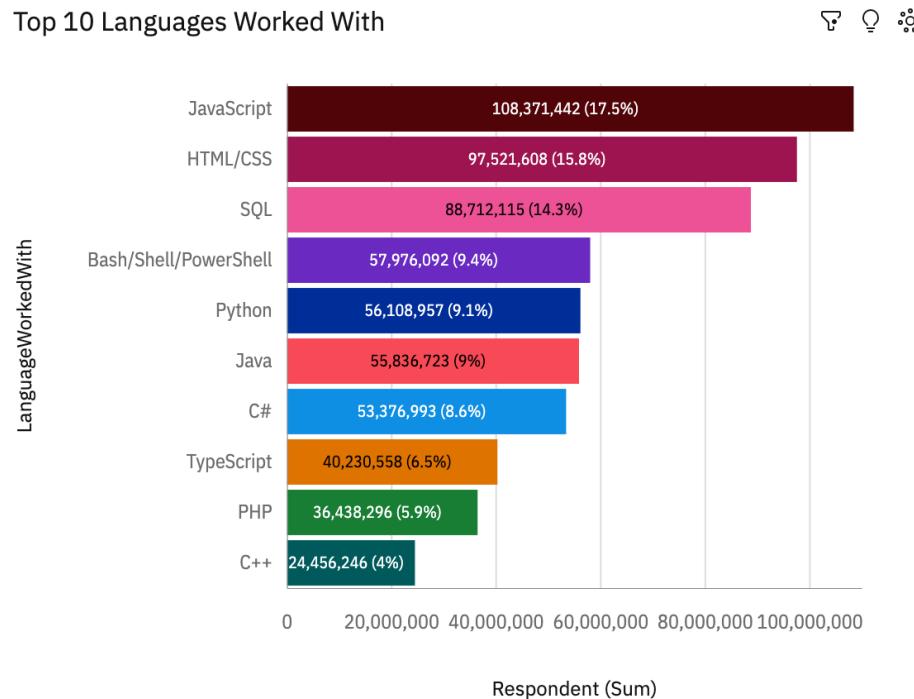


RESULTS

PROGRAMMING LANGUAGE TRENDS

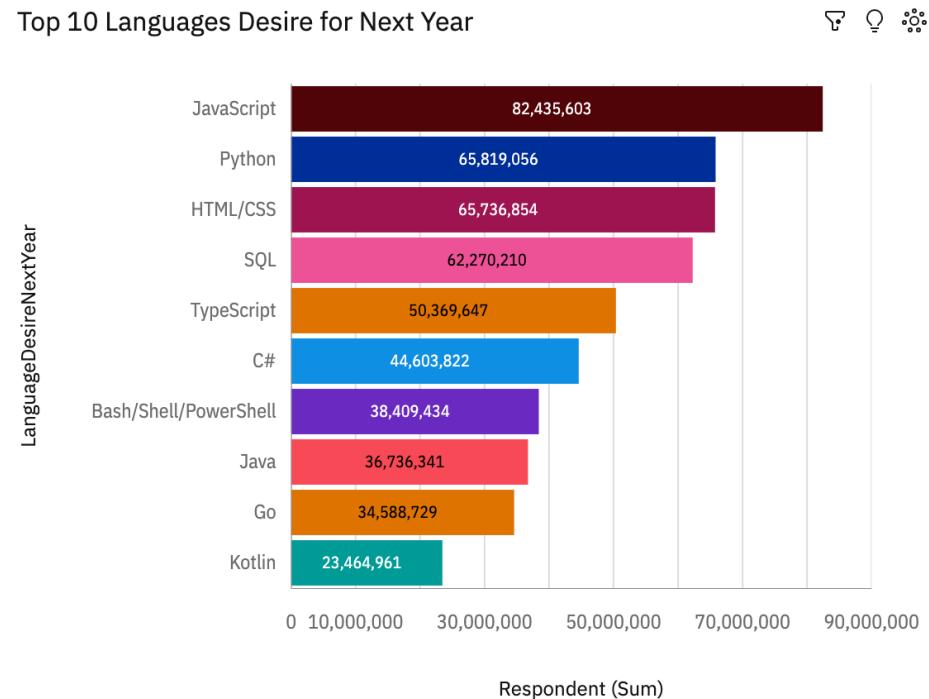
Current Year

Top 10 Languages Worked With



Next Year

Top 10 Languages Desire for Next Year



PROGRAMMING LANGUAGE TRENDS - FINDINGS & IMPLICATIONS

Findings

- JavaScript is the most popular Language
- Of the leading 5 Python is the fastest growing Language.
- The Top 3 Languages add to almost 50% of the languages worked with.

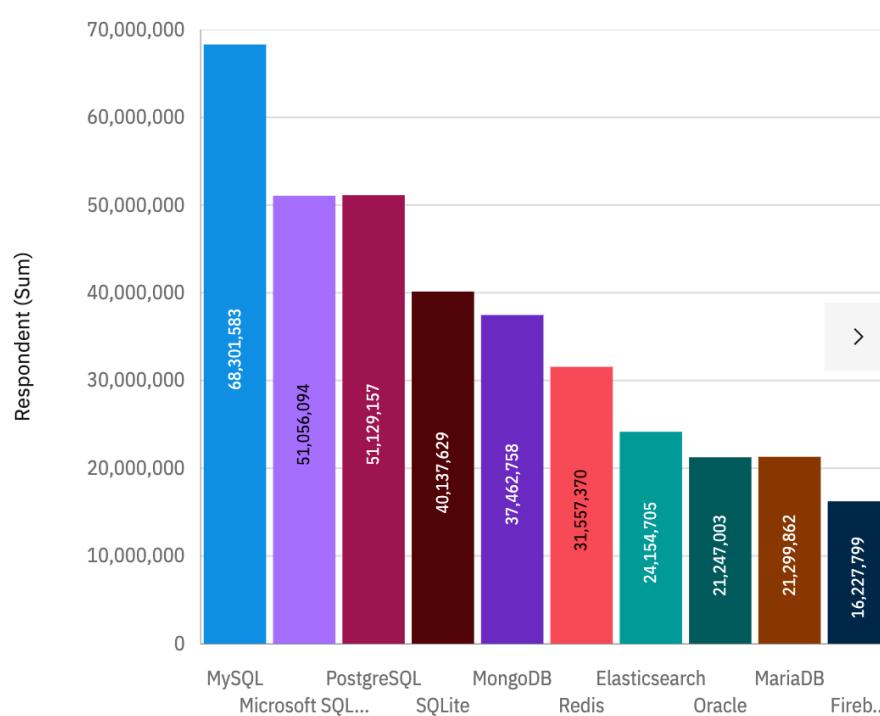
Implications

- Possible migration from HTML/CSS and SQL to Python.
- JavaScript will lose Popularity, but it will maintain its top position as language worked with.

DATABASE TRENDS

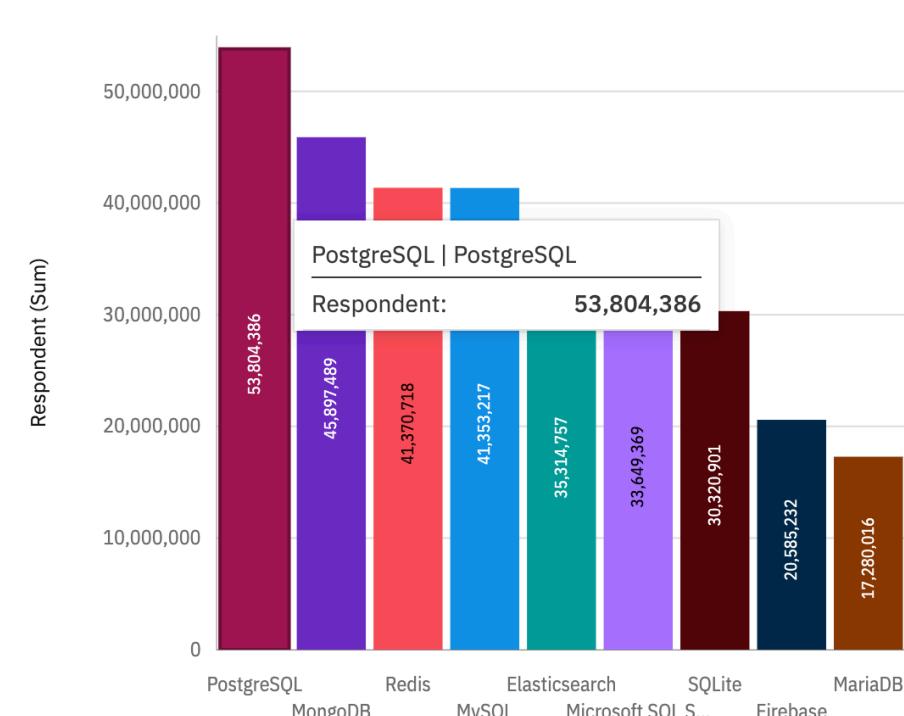
Current Year

Top 10 Databases Worked With



Next Year

Top 10 Databases Desire for Next Year



DATABASE TRENDS - FINDINGS & IMPLICATIONS

Findings

- MySQL was the most popular database for the year.
- Microsoft SQL server falls from 3rd most used database to 6th place.
- PostgreSQL and MongoDB jump to 1st and 2nd most used databases, respectively.

Implications

- MySQL and Microsoft SQL Server will lose its popularity.
- PostgreSQL and MongoDB seem to take place as the most popular databases for next year.

DASHBOARD

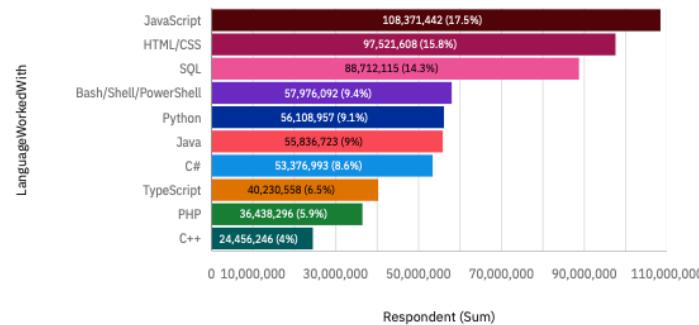


[Link for Complete Dashboard in IBM Cognos.](#)

DASHBOARD TAB 1

Current Technology Usage

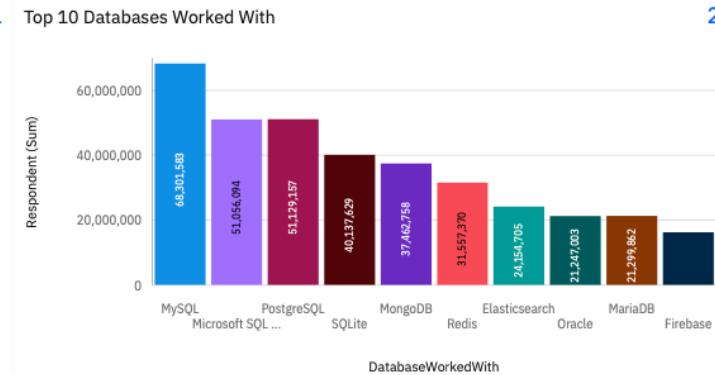
Top 10 Languages Worked With



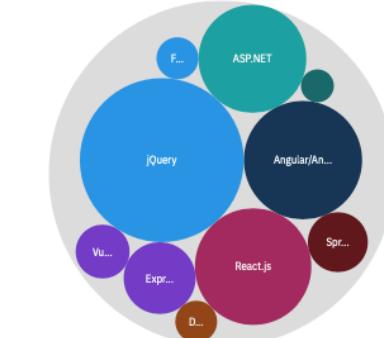
Platforms Worked With



1 Top 10 Databases Worked With



3 Top 10 Web Frames Worked With



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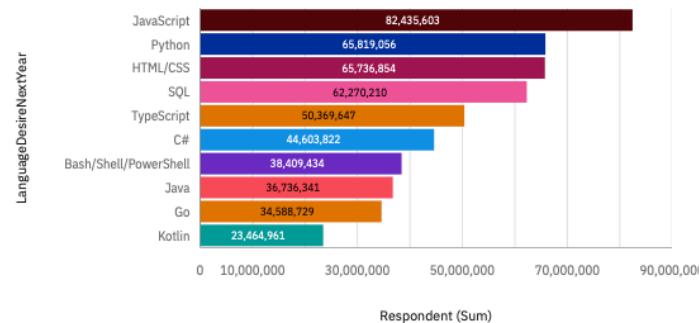
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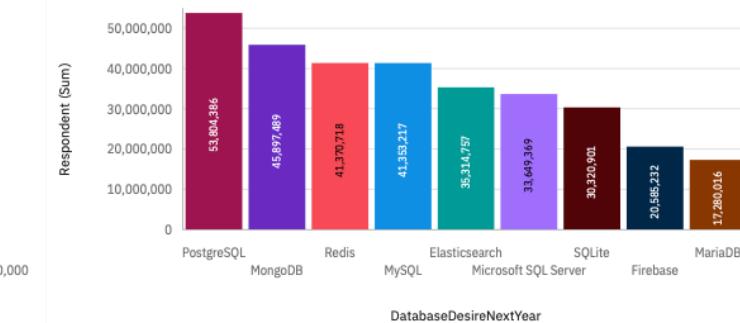
DASHBOARD TAB 2

Future Technology Trend

Top 10 Languages Desire for Next Year

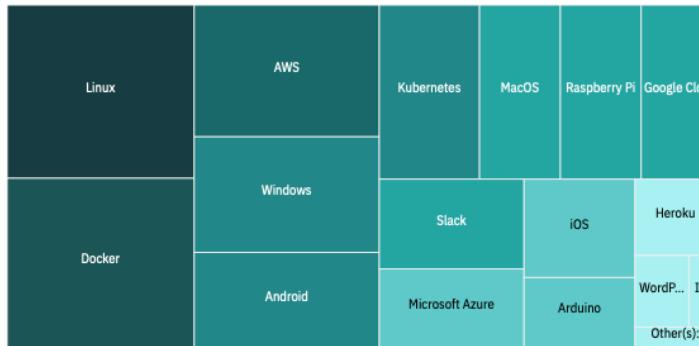


5 Top 10 Databases Desire for Next Year

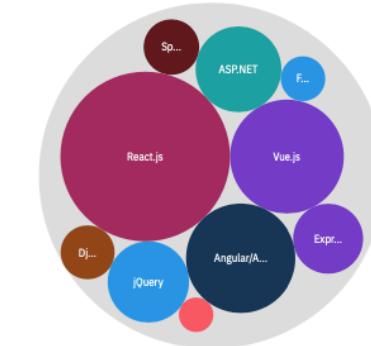


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Platforms Desire for Next Year Hierarchy



7 Top 10 Web Frames Desire for Next Year

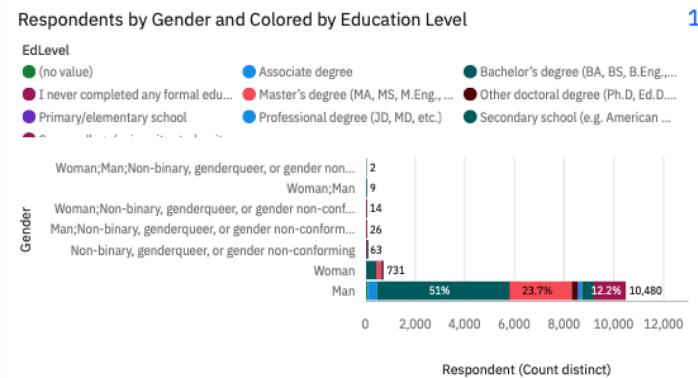
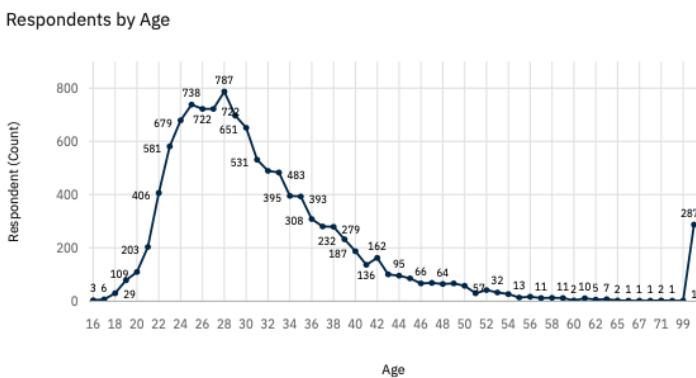
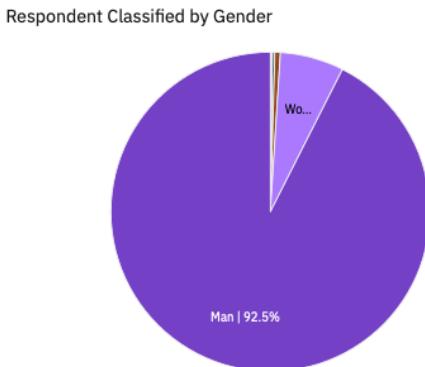


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DASHBOARD TAB 3

Demographics



DISCUSSION



OVERALL FINDINGS & IMPLICATIONS

Findings

- JavaScript Holds its Place as most used Coding Language. While Python is the fastest growing.
- Most developers are male, over 90%.
- The majority of developers have at least a Bachelor's degree.

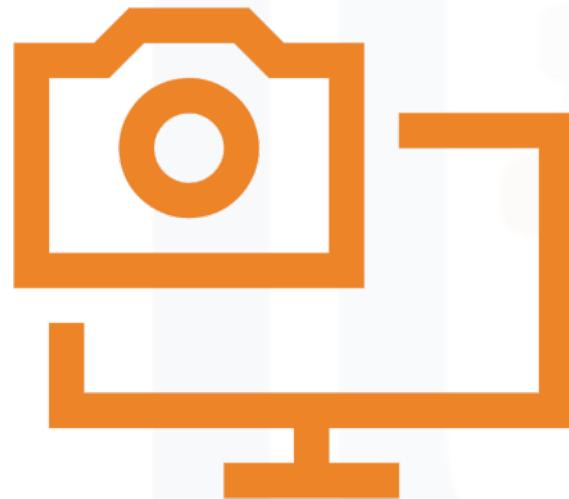
Implications

- Python and TypeScript increasing considerably in popularity.
- Developers mostly based in The USA, UK, Germany, and developing countries such as India and Brazil.

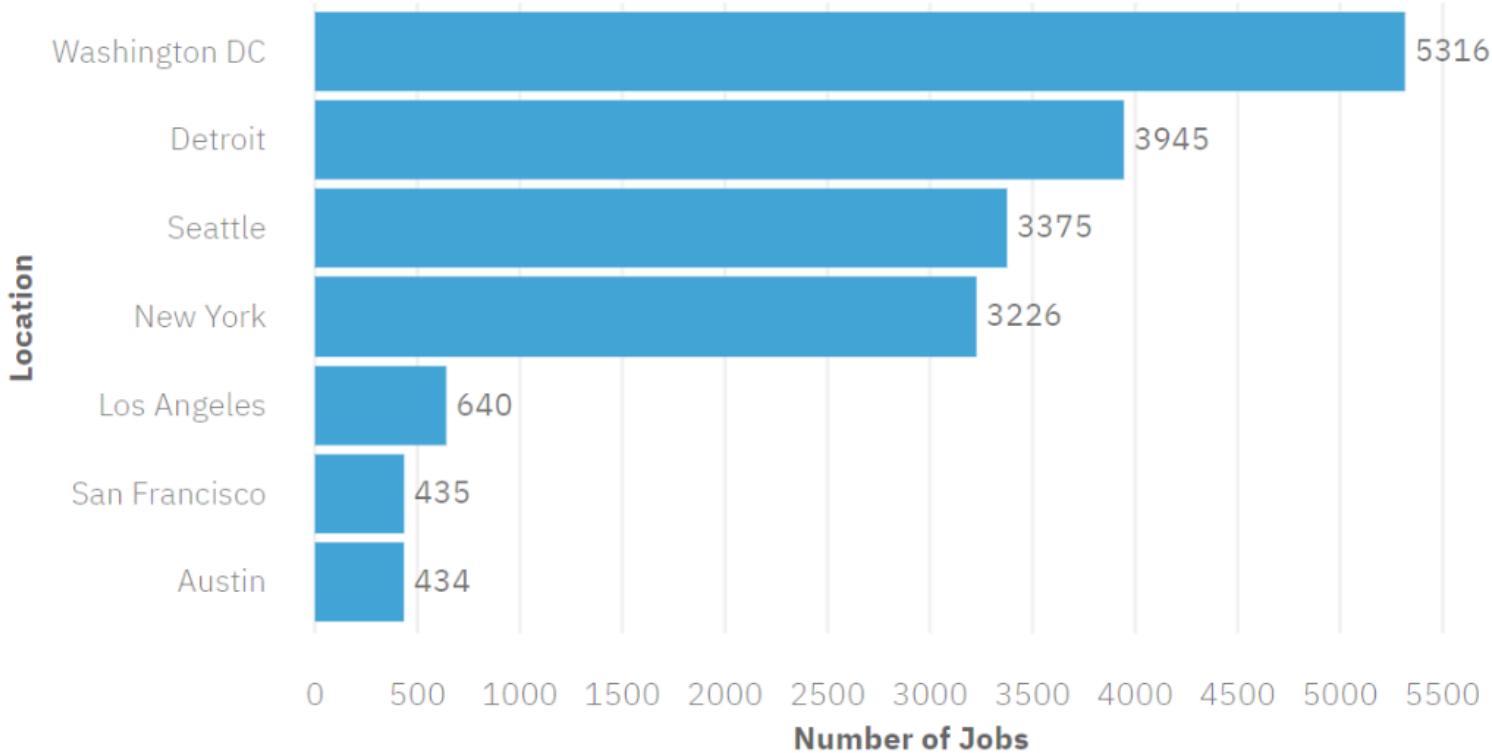
CONCLUSION



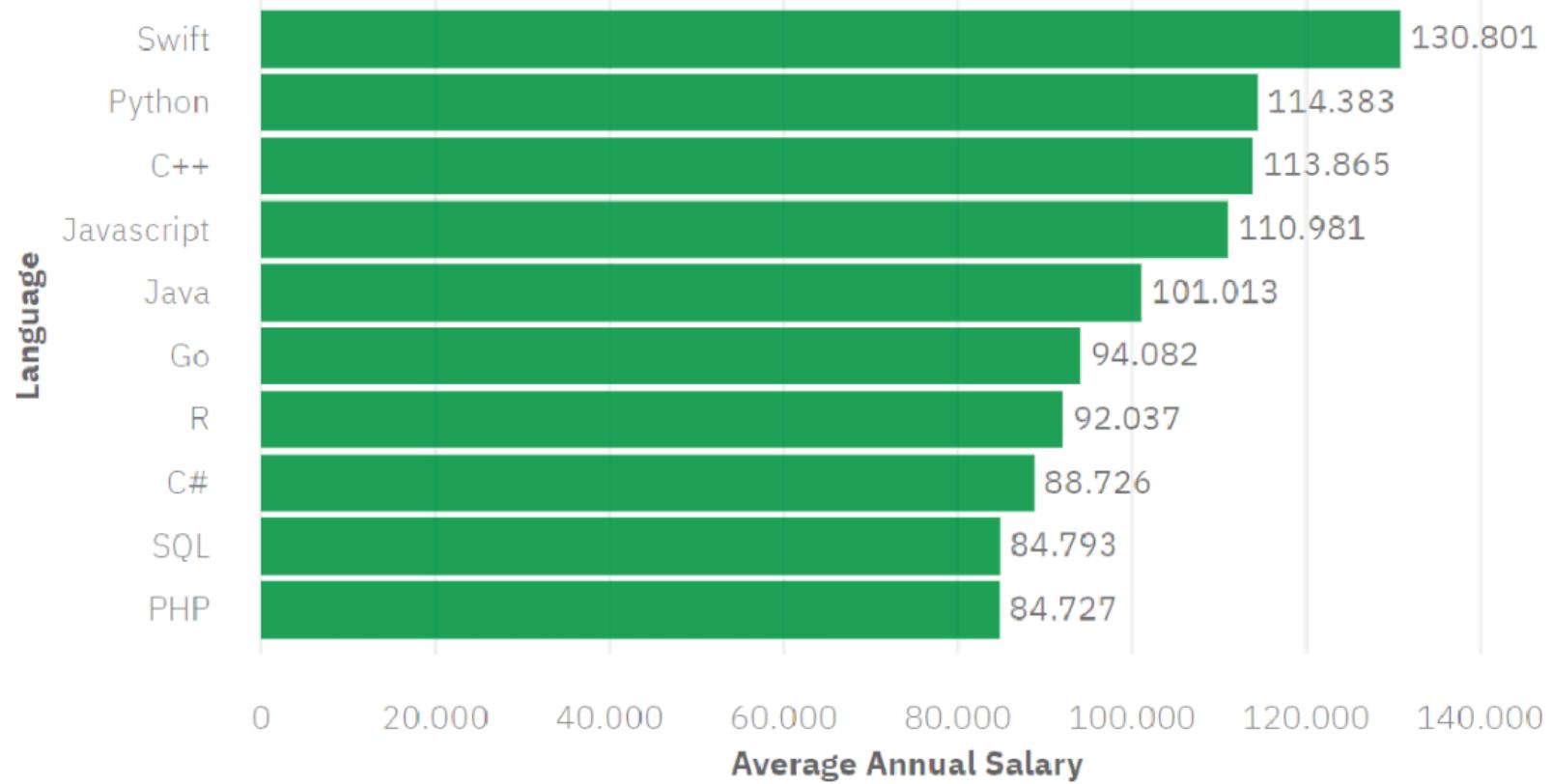
APPENDIX



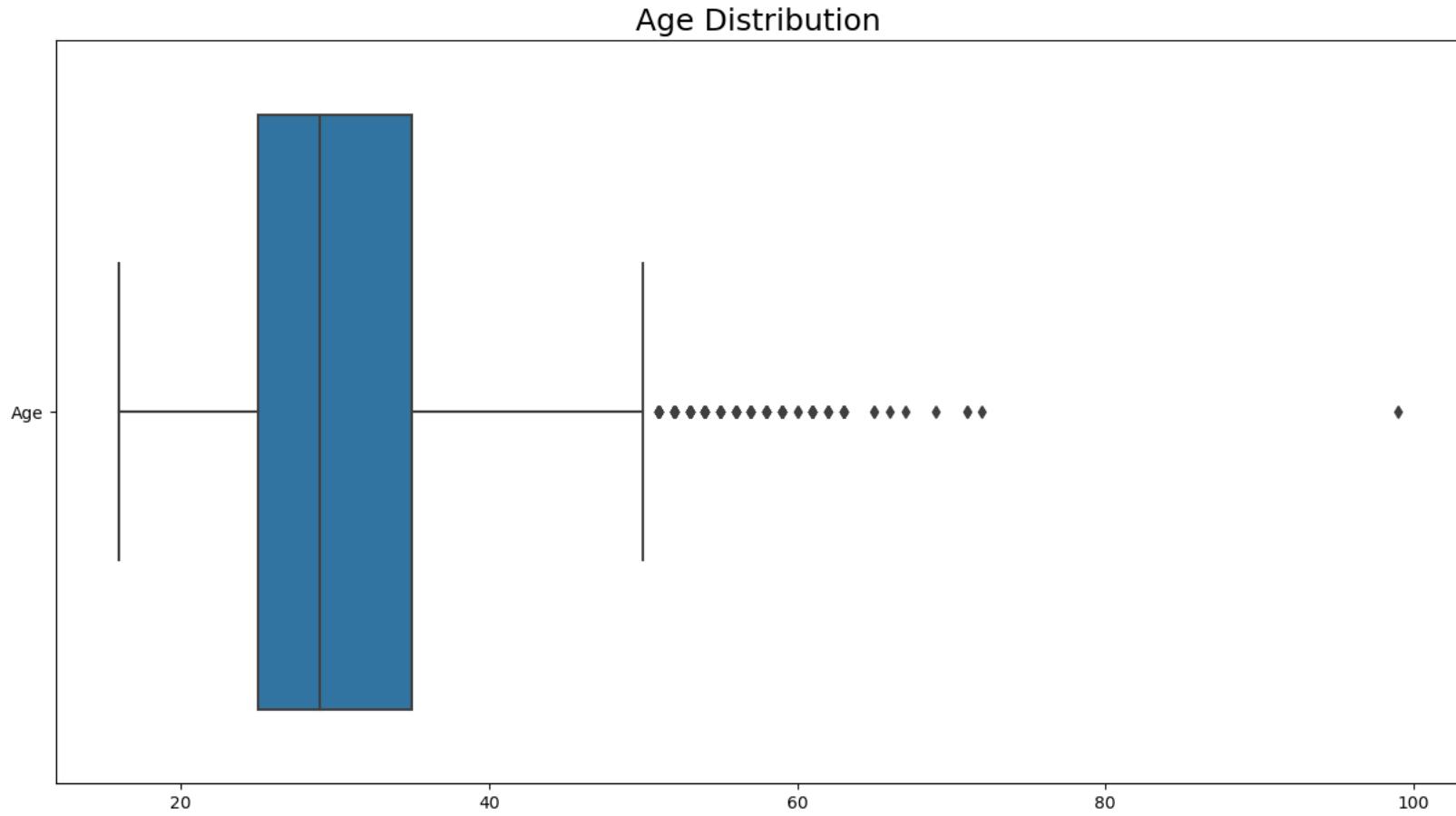
JOB POSTINGS



POPULAR LANGUAGES



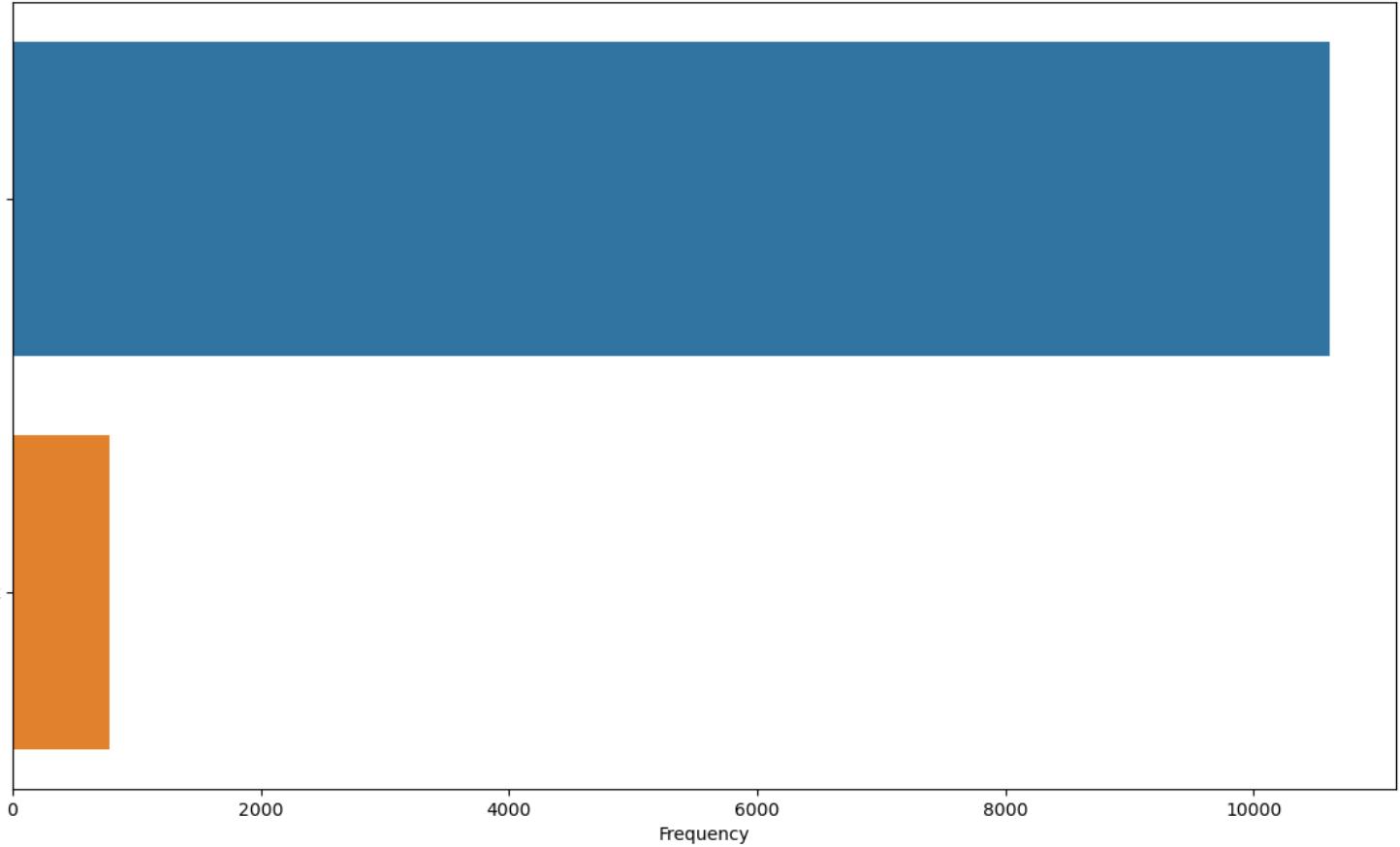
Age Distribution



Developer Characteristic

MainBranch

I am a developer by profession -





Thank You



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