



Stack Overflow Developer Survey | Findings Summary

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OUTLINE



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

EXECUTIVE SUMMARY



- Data Contextualization & Analysis
- 3-Step Process
 - Data Gathering
 - Data Analysis
 - Data Visualisation
- Data Presentation depicting graphs & trends
- Overall Findings
- Conclusion

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.

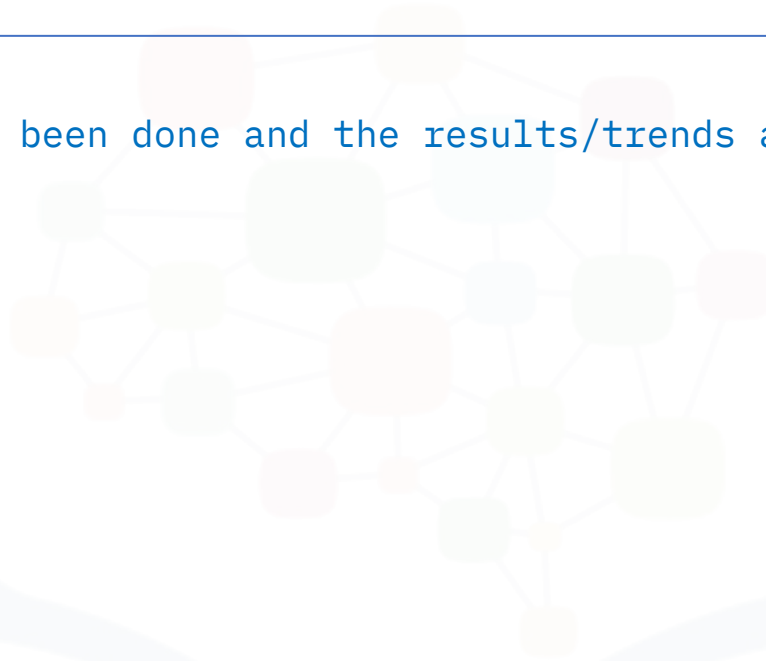
METHODOLOGY



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

RESULTS

Data Analysis has been done and the results/trends are presented in below slides.



PROGRAMMING LANGUAGE TRENDS

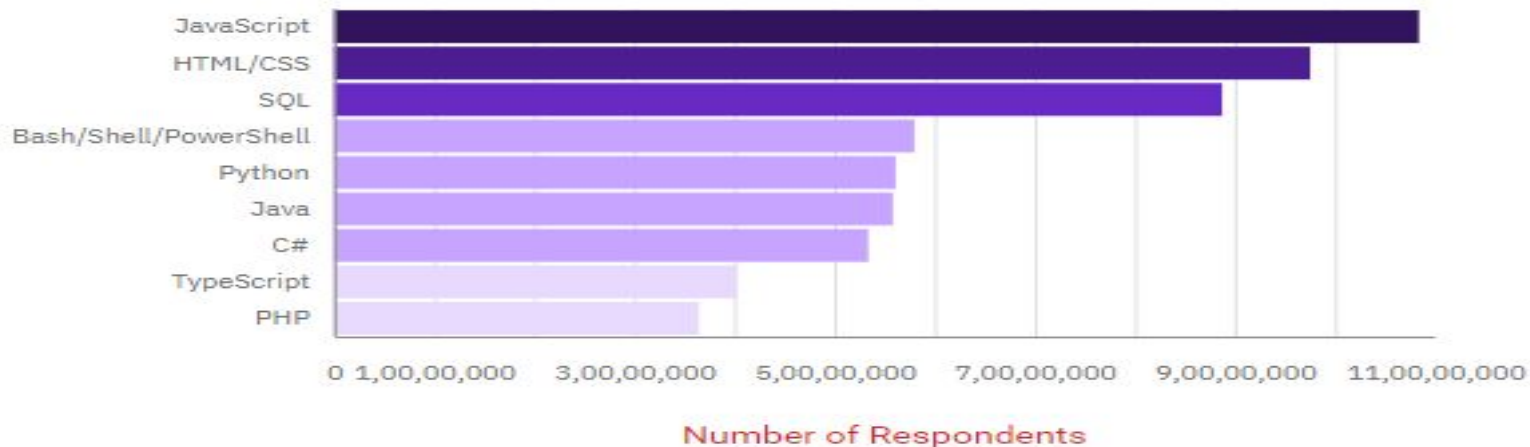
Current Year

Top 10 Languages

Respondent (Sum)

3,64,38,296 10,83,71,442

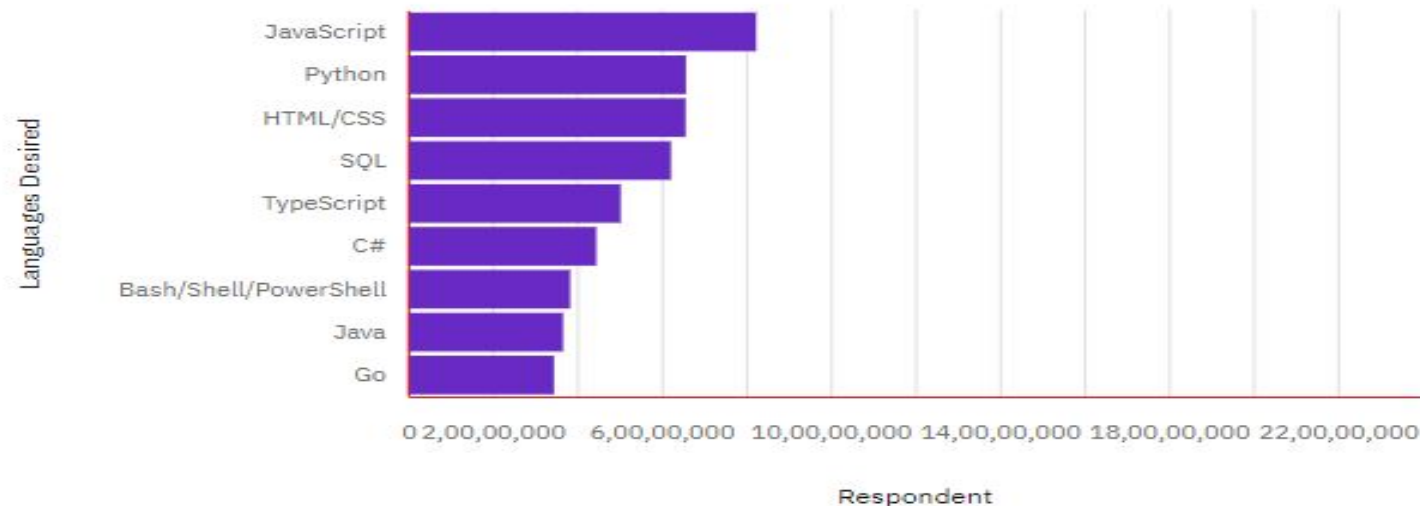
Languages



PROGRAMMING LANGUAGE TRENDS

Next 10 Years

Top 10 Languages Desired to Work With



PROGRAMMING LANGUAGE TRENDS - FINDINGS & IMPLICATIONS

Findings

- JavaScript is the leading language.
- Python is growing fast.
- Great Interest in TypeScript.

Implications

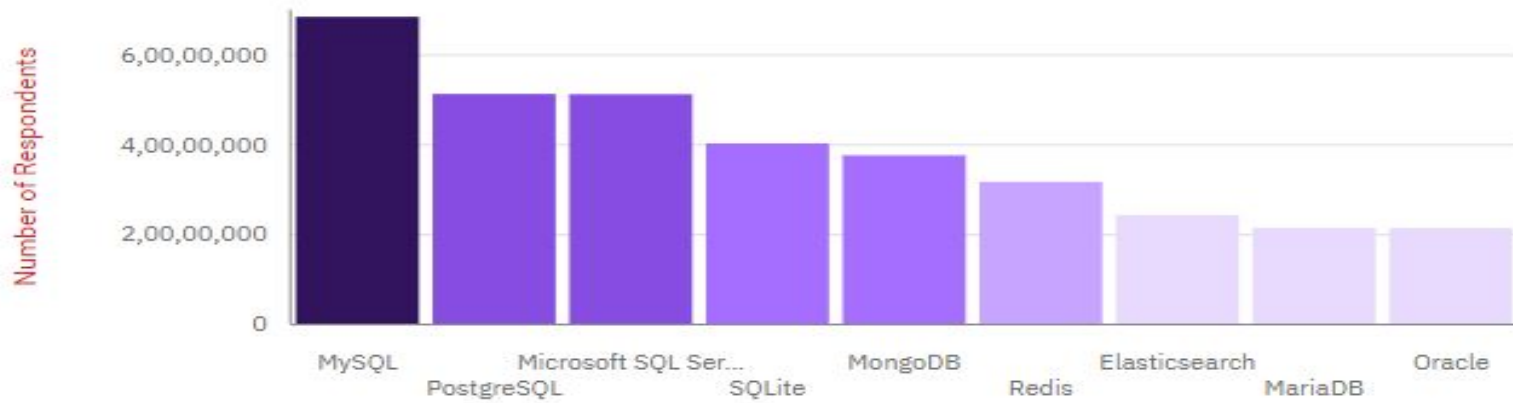
- High possibility of migrating from javascript to typescript.

DATABASE TRENDS

Current Year

TOP 10 Databases Worked With

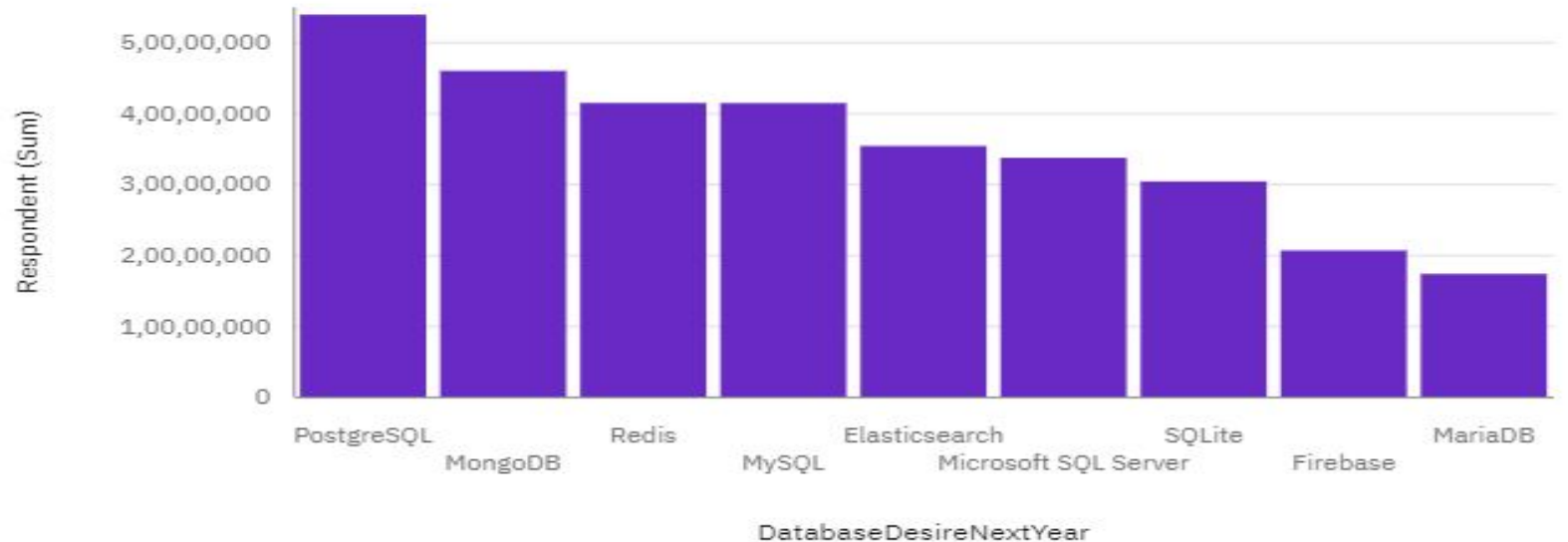
Respondent (Sum)



DATABASE TRENDS

Next 10 Years

Top 10 Databases Desired 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.

DASHBOARD



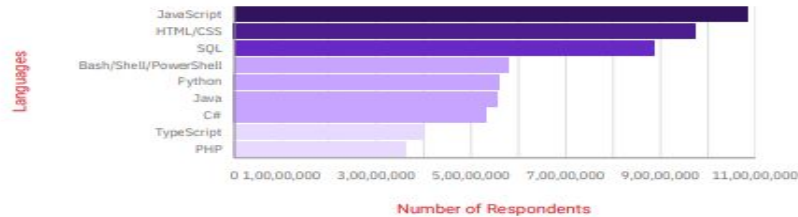
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DASHBOARD TAB 1

Current Technology Usage

Top 10 Languages

Respondent (Sum)
3,64,38,296 10,83,71,482



1 TOP 10 Databases Worked With

Respondent (Sum)
2,12,47,003 6,83,01,583



Platforms Worked With

PlatformWorkedWith
(no value)
Docker
Kubernetes
Other(s):
Microsoft Azure

AWS
Google Cloud Platform
Linux
Raspberry Pi
iMac
Android
Heroku
MacOS
Slack
Arduino
IBM Cloud or Watson
Microsoft Azure
Windows



WebFrames Worked With

WebFrameWorkedWith
0 4,629

WebFrameWorkedWith
(no value)
Drupal
Other(s):
Vue.js

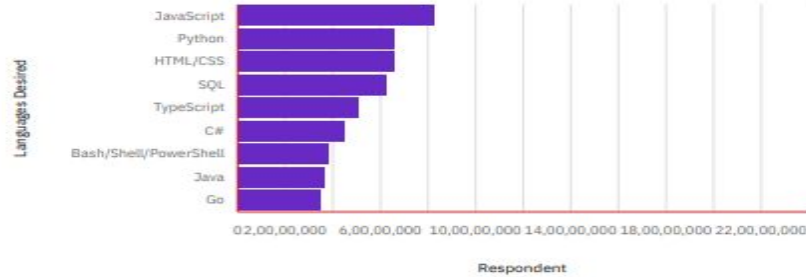
ASP.NET
Express
React.js
jQuery
Angular/Angular.js
Flask
Ruby on Rails
Django
Laravel
Spring



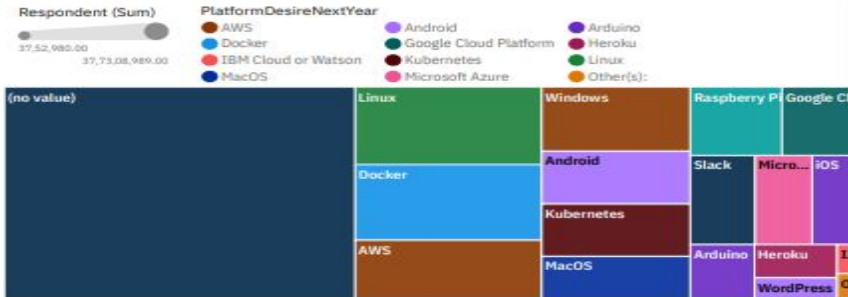
DASHBOARD TAB 2

Future Technology Trend

Top 10 Languages Desired to Work With



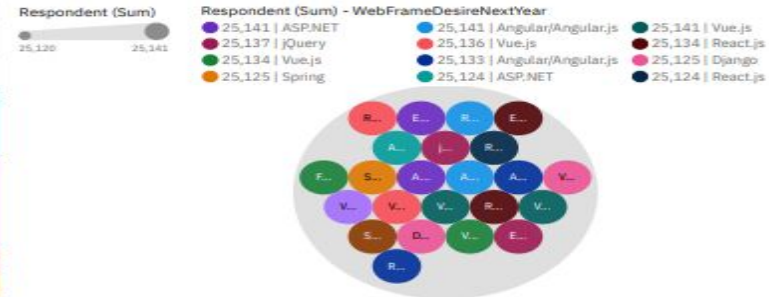
Platform Desired Next Year



Top 10 Databases Desired Next Year



Top 10 Webframes Desired Next Year



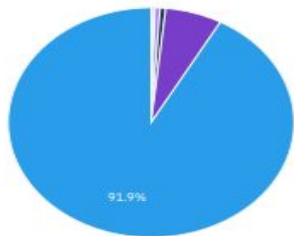
DASHBOARD TAB 3

Demographics

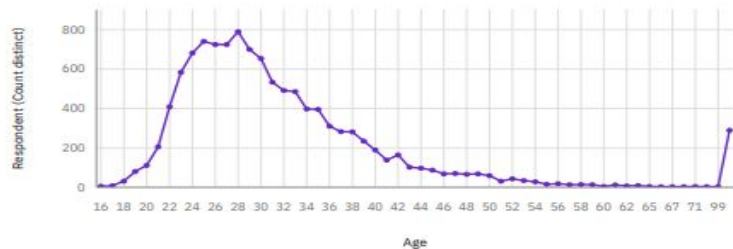
Respondent by Gender

Gender

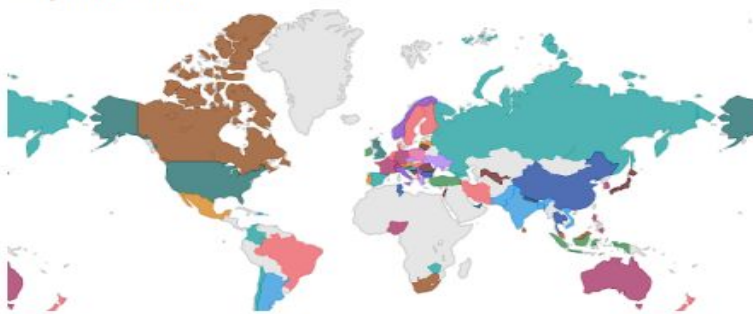
- Woman;Man;Non-binary, genderqueer, or gender non-conforming
- Man;Non-binary, genderqueer, or gender non-conforming
- Woman
- Woman;Man
- Non-binary, genderqueer, or gender non-conforming
- Man
- Woman;Non-binary, genderqueer, or gender non-conforming
- (no value)



Respondent by Age



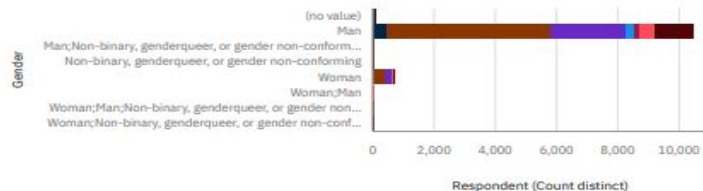
Respondent Location



Respondent by Gender colored by EdLevel

EdLevel

- (no value)
- I never completed any formal education
- Primary/elementary school
- Some college/university study without earning a degree
- Associate degree
- Master's degree (MA, MS, M.Eng., etc.)
- Professional degree (JD, MD, etc.)
- Bachelor's degree (BA, BS, B.Eng., etc.)
- Other doctoral degree (Ph.D., Ed.D., etc.)
- Secondary school (e.g. American high school)



OVERALL FINDINGS & IMPLICATIONS

Findings

- JavaScript widely used and TypeScript getting popular.
- Over 90% young male developers.
- Developers mostly located in developed countries.

Implications

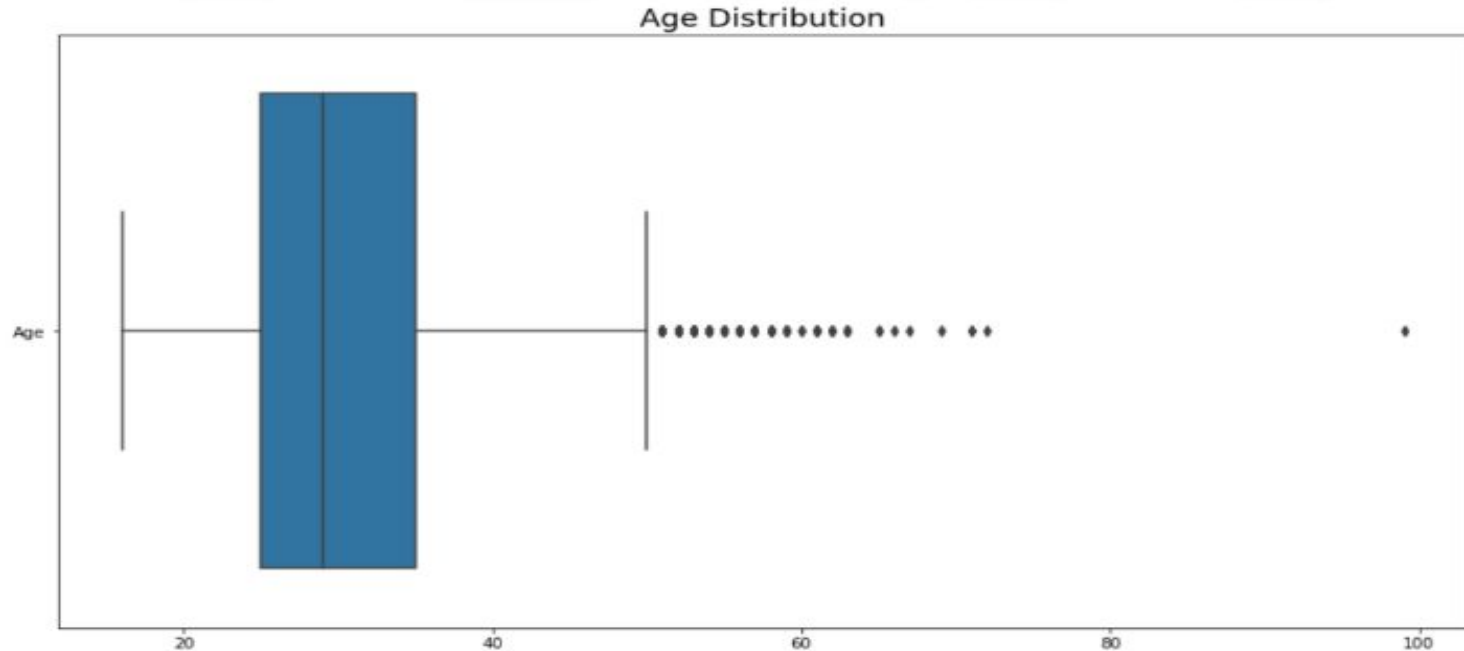
- JavaScript and TypeScript web frames gaining followers.
- Global polarization of developers location and gender.
- Young developers without postgrad studies on its majority

CONCLUSION

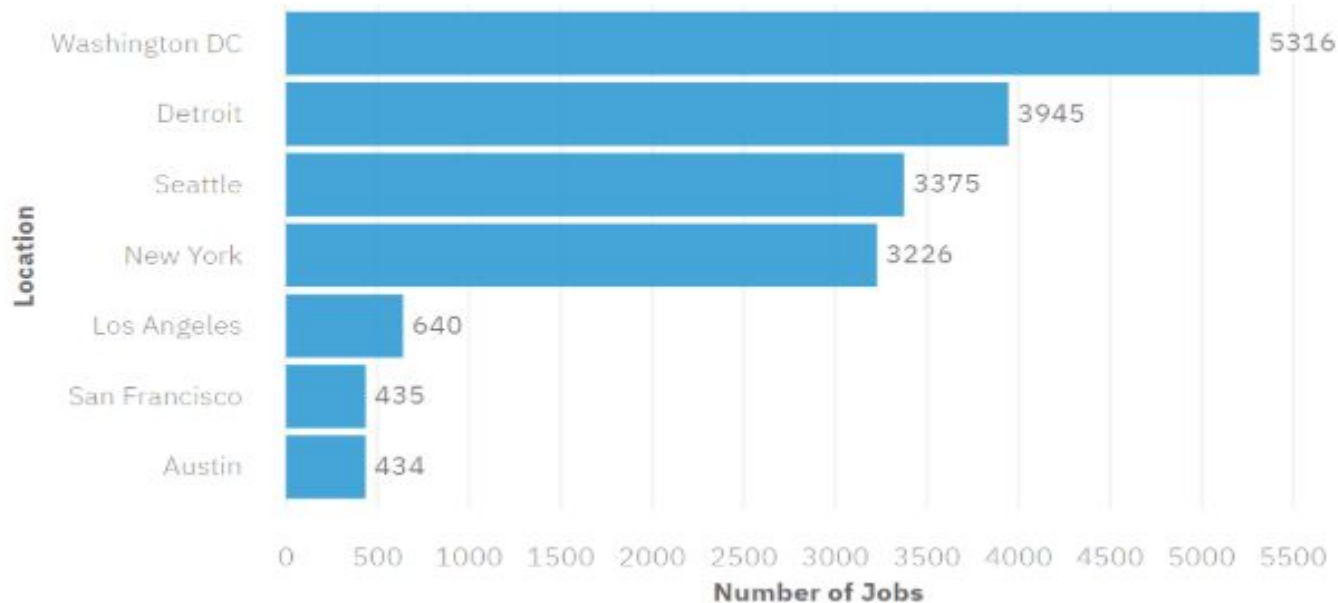


- Developers are people with very marked characteristics.
- A good idea of popularity trends of different tools, platforms and languages can be obtained.
- There is a job to be done to spread accessibility of this labor market to countries in development.

APPENDIX : AGE Distribution Box Plot



JOB POSTINGS



POPULAR LANGUAGES

