



# STACK OVERFLOW DEVELOPER SURVEY

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# OUTLINE

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

# EXECUTIVE SUMMARY

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- Data contextualization and analysis goal
- Methodology description
  - Data gathering
  - Data analysis
  - Data visualizations
- Result presentation supported with graph and trends
- Discussion of overall findings and implications regarding the resul previously exposed
- Final conclusions of the carried out research

# INTRODUCTION

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- 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

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- 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, relationship, the composition and comparison of data
- Dashboards

# RESULTS

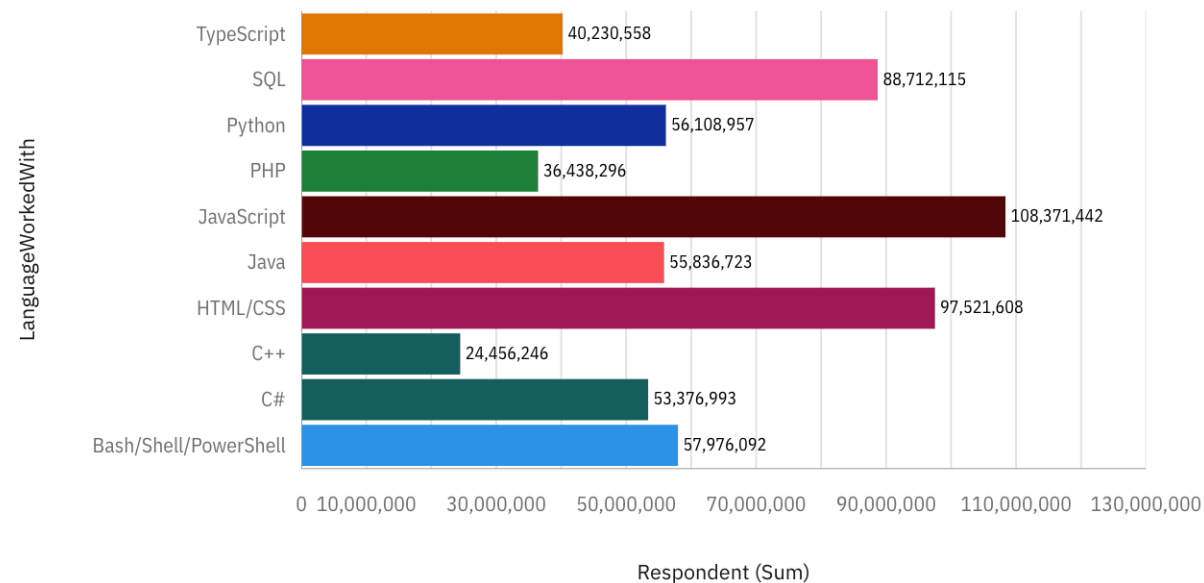
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# PROGRAMMING LANGUAGE TRENDS

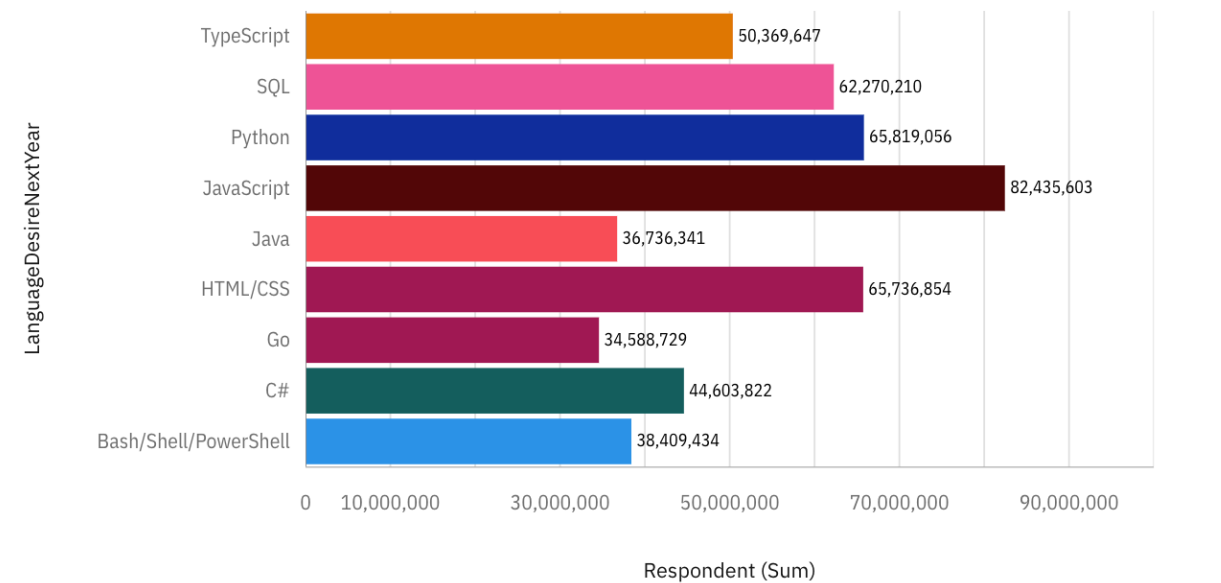
## Current Year

Top 10 Programming Language Workers



## Next Year

Top 10 Programming Language Desire Next Year



# PROGRAMMING LANGUAGE TRENDS - FINDINGS & IMPLICATIONS

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## Findings

- JavaScript seems to keep as leading programming language
- Python fastest-growing
- Great interest in TypeScript

## Implications

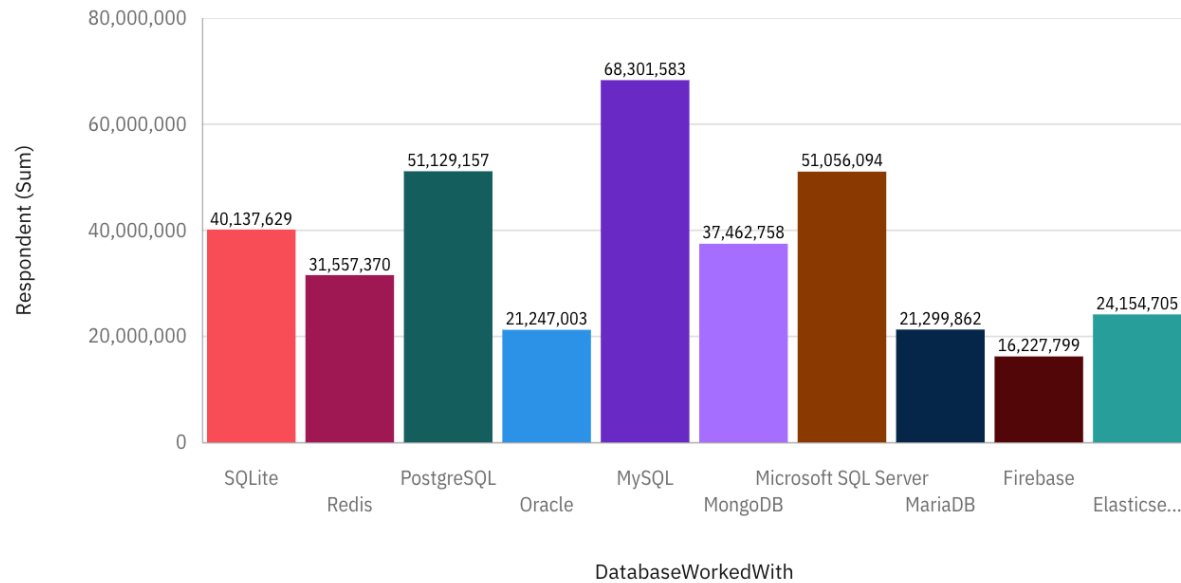
- Possible developers migration from JavaScript to TypeScript



# DATABASE TRENDS

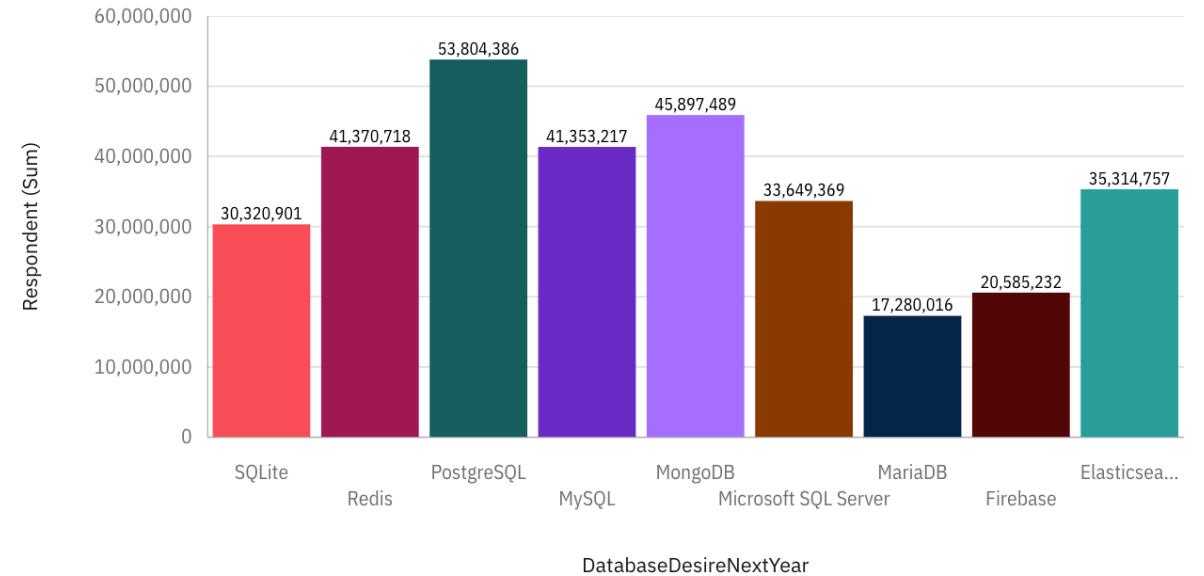
## Current Year

Top 10 Databases Workers



## Next Year

Top 10 Databases Desire Next Year



# DATABASE TRENDS - FINDINGS & IMPLICATIONS

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## 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

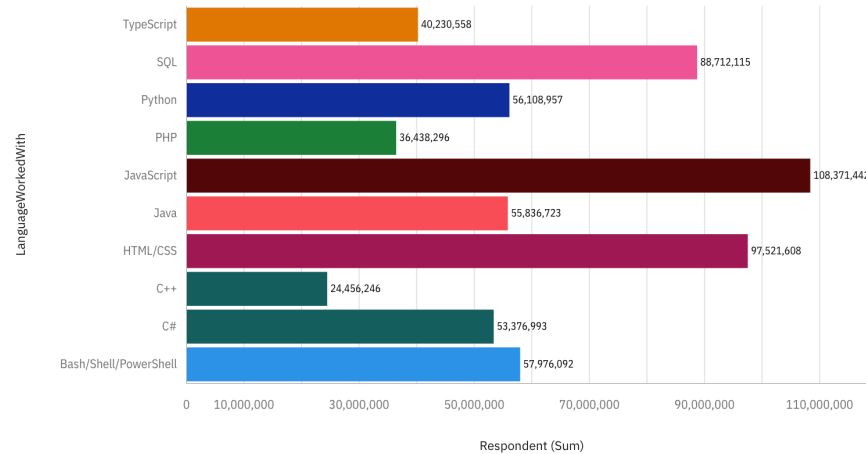
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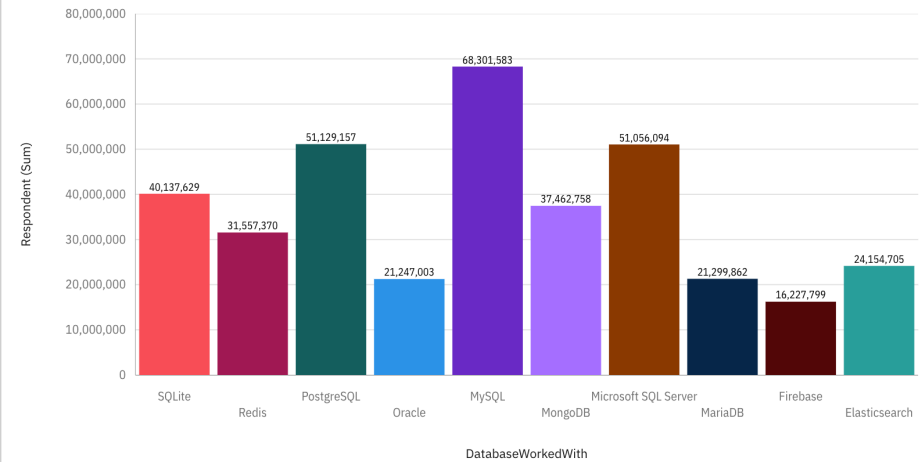
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# CURRENT TECHNOLOGY USAGE

Top 10 Programming Language Workers



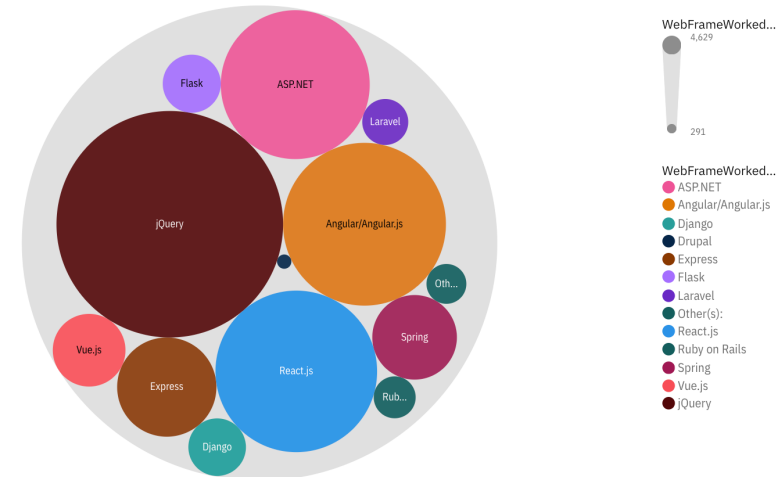
Top 10 Databases Workers



Platform Interacted

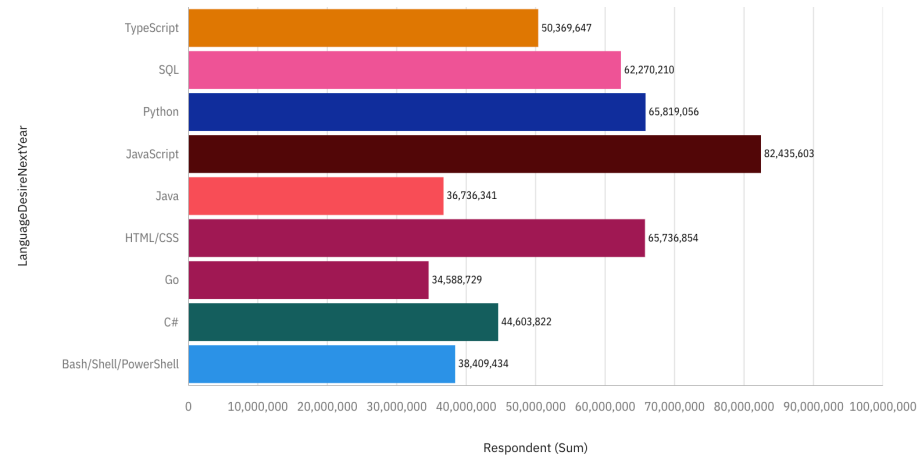


Top 10 WebFrames Used

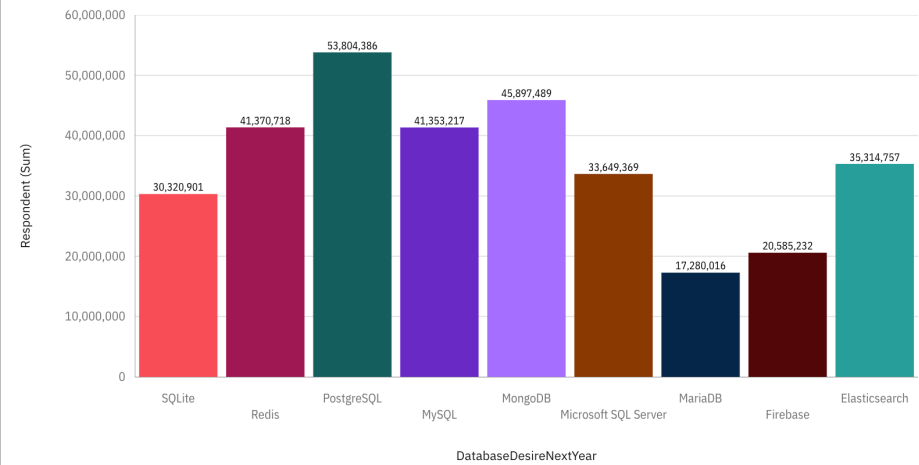


# FUTURE TECHNOLOGY TREND

Top 10 Programming Language Desire Next Year



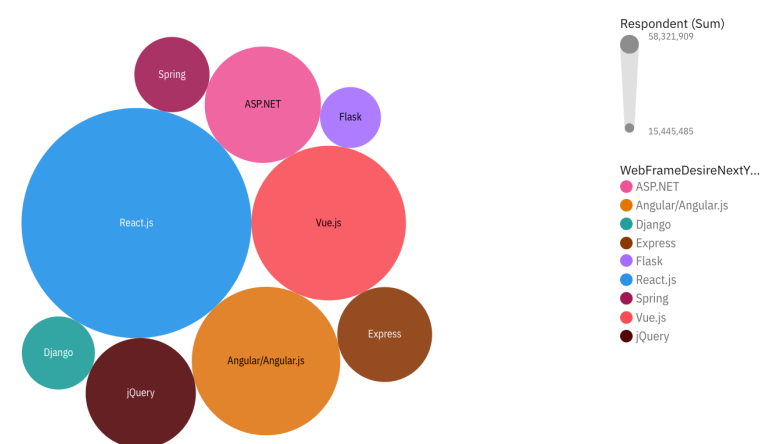
Top 10 Databases Desire Next Year



Platform Desire Next Year

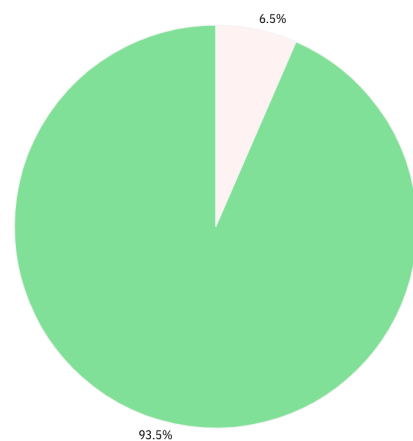


Top 10 WebFrame Desire Next Year

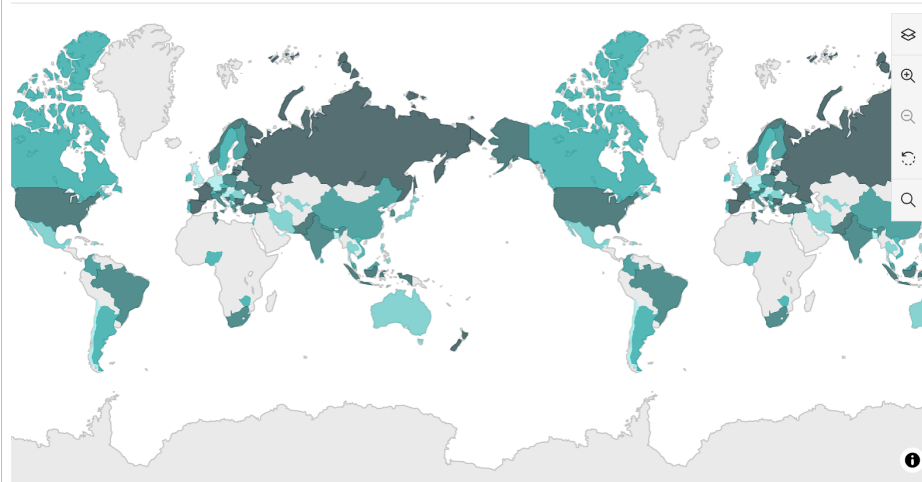


# DEMOGRAPHICS

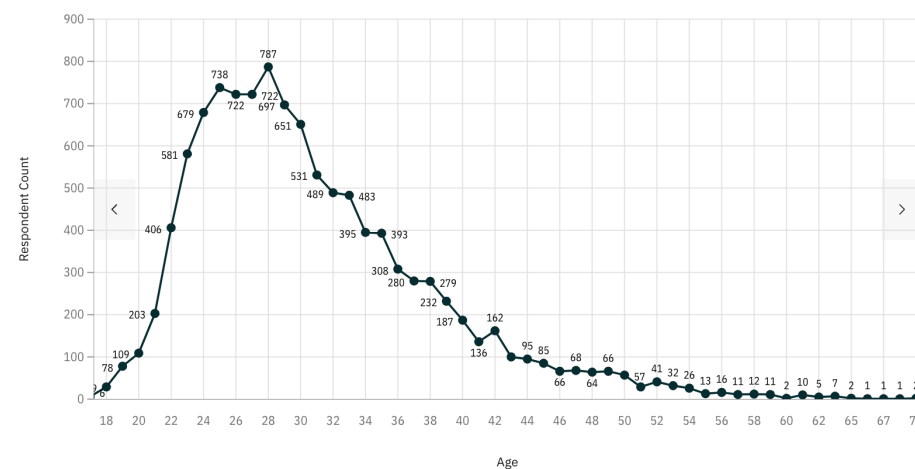
Respondent by Gender



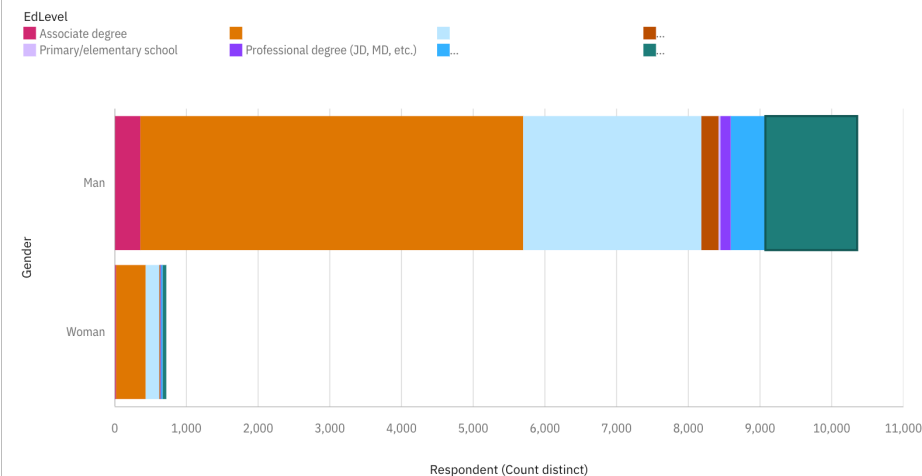
Respondent Locations



Respondent by Age

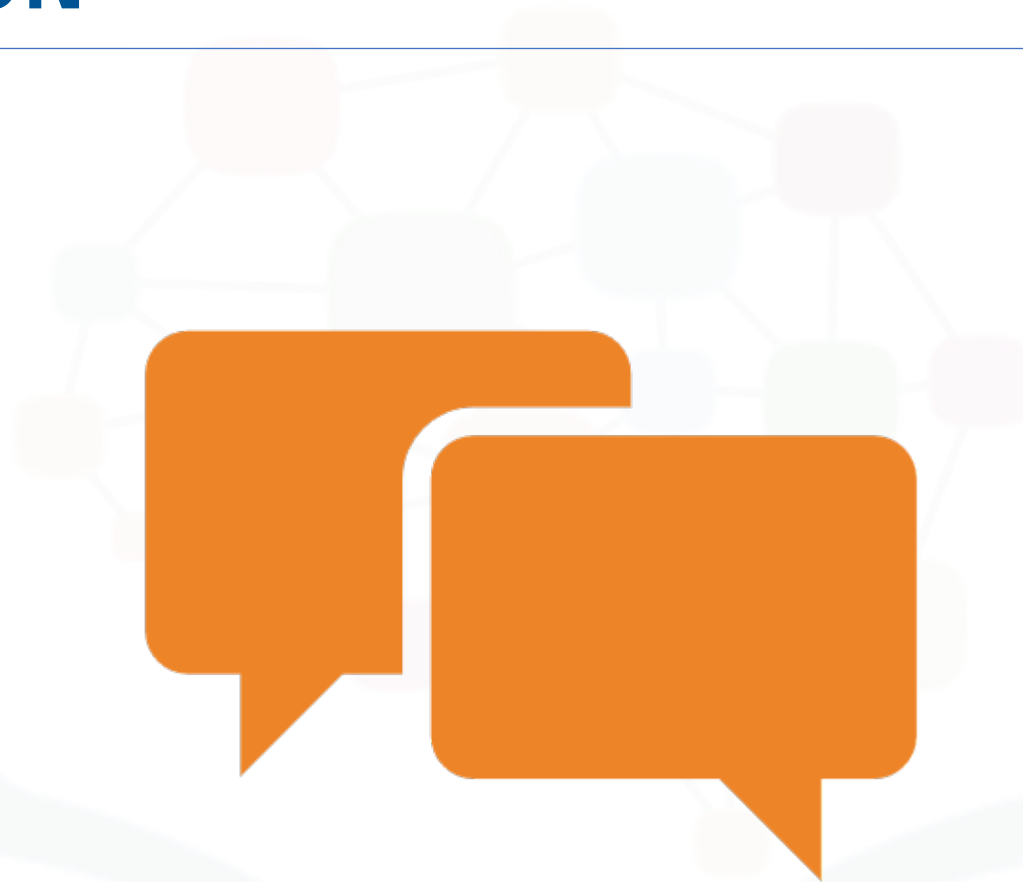


Formal Education Level by Gender



# DISCUSSION

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# OVERALL FINDINGS & IMPLICATIONS

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## 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

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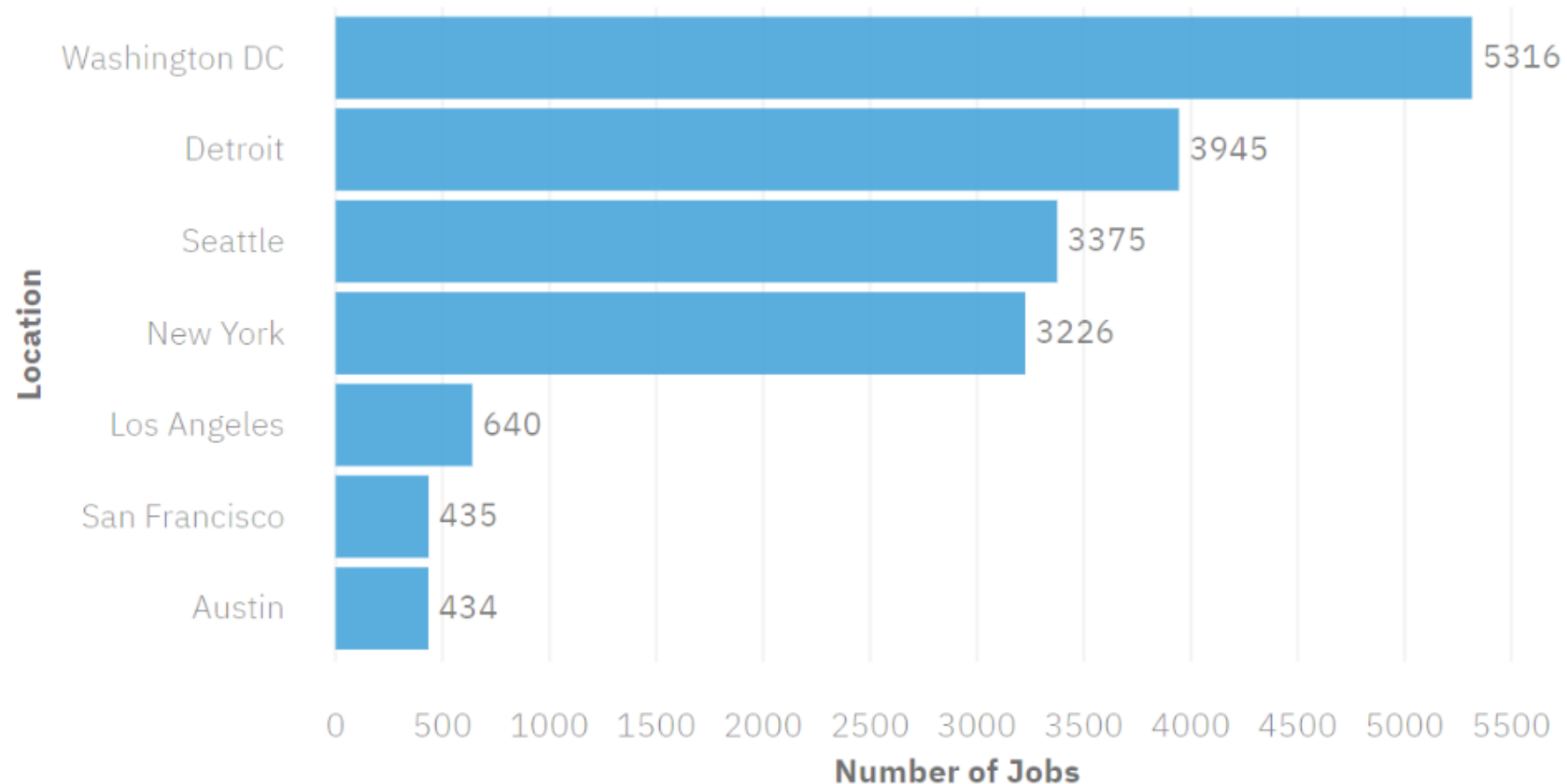
- Developers are people with very marked characteristics
- A good idea of popularity trends of different tools, platforms and language can be obtained
- There is a job to be done to spread accessibility of this labor market to countries in development

# APPENDIX

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# JOB POSTINGS



# POPULAR LANGUAGES

