Stack Overflow Developer Survey 2019

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OUTLINE

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

EXECUTIVE SUMMARY

- Data Conceptualization and Analysis Goals
- Methodology Description
  - Data Gathering
  - Data Analysis
  - Data Visualization
- Results Presentation supported with Visualization 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.
- The Survey consists of nearly 90,000 developers
- This report highlights trends to predict where developers are going
- And a characterization of developers around the globe.

METHODOLOGY

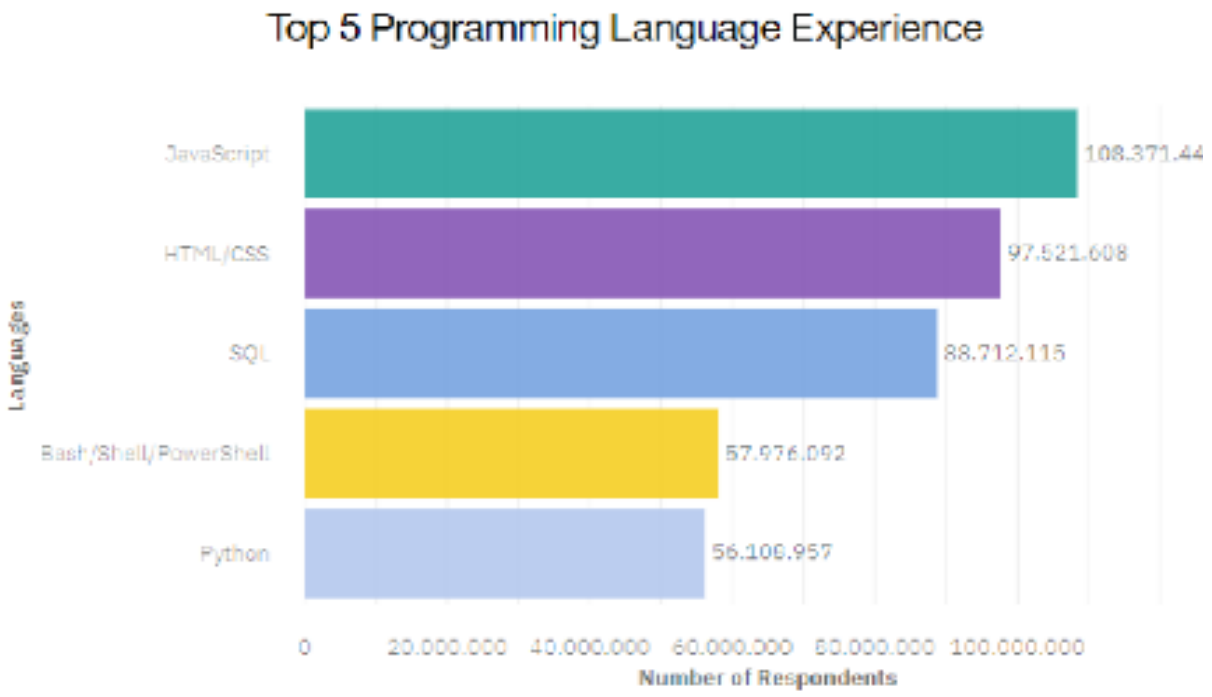
- Collect survey data and explore its content
  - Web Scraping
  - APIs
  - Requests Library
- Data Wrangling
- Exploratory Data Analysis
  - Analyzing data distribution
  - Handling outliers
  - Correlations
- Data Visualization

  Highlight the distribution of data, relationships, composition and comparison of data.
- Dashboards

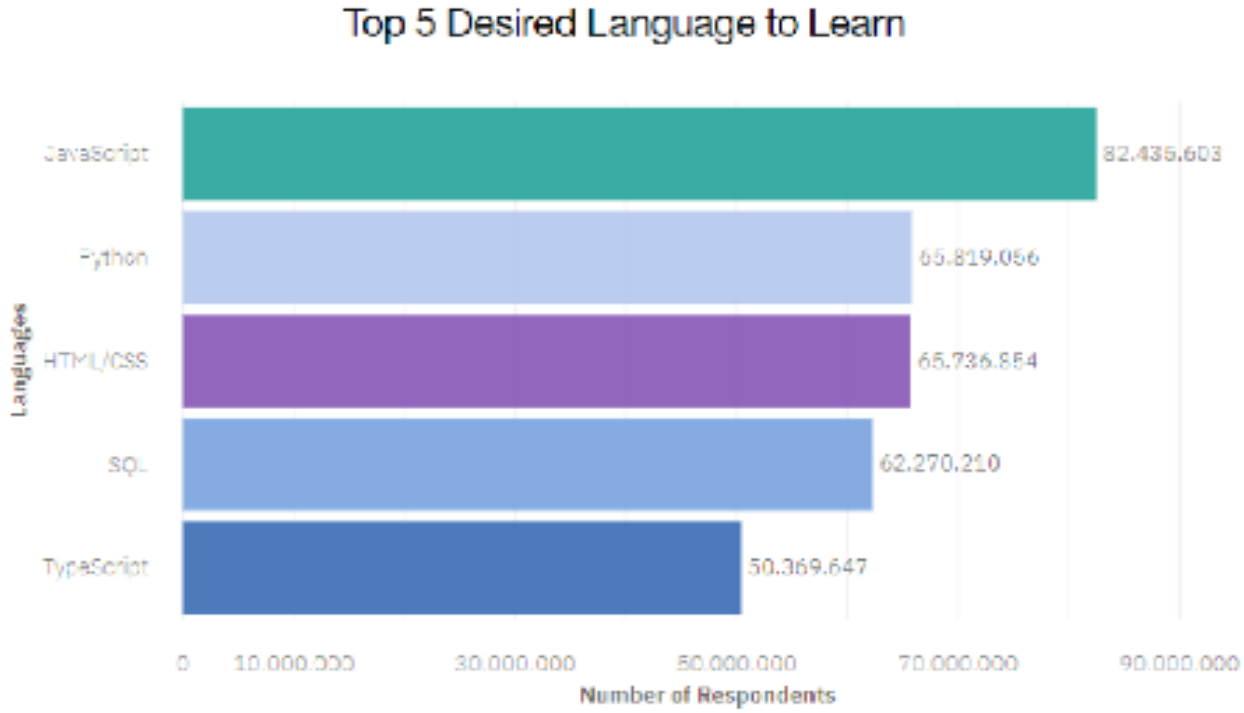
RESULTS

PROGRAMMING LANGUAGE TRENDS

Current Year



Next Year



PROGRAMMING LANGUAGE TRENDS - FINDINGS & IMPLICATIONS

Findings

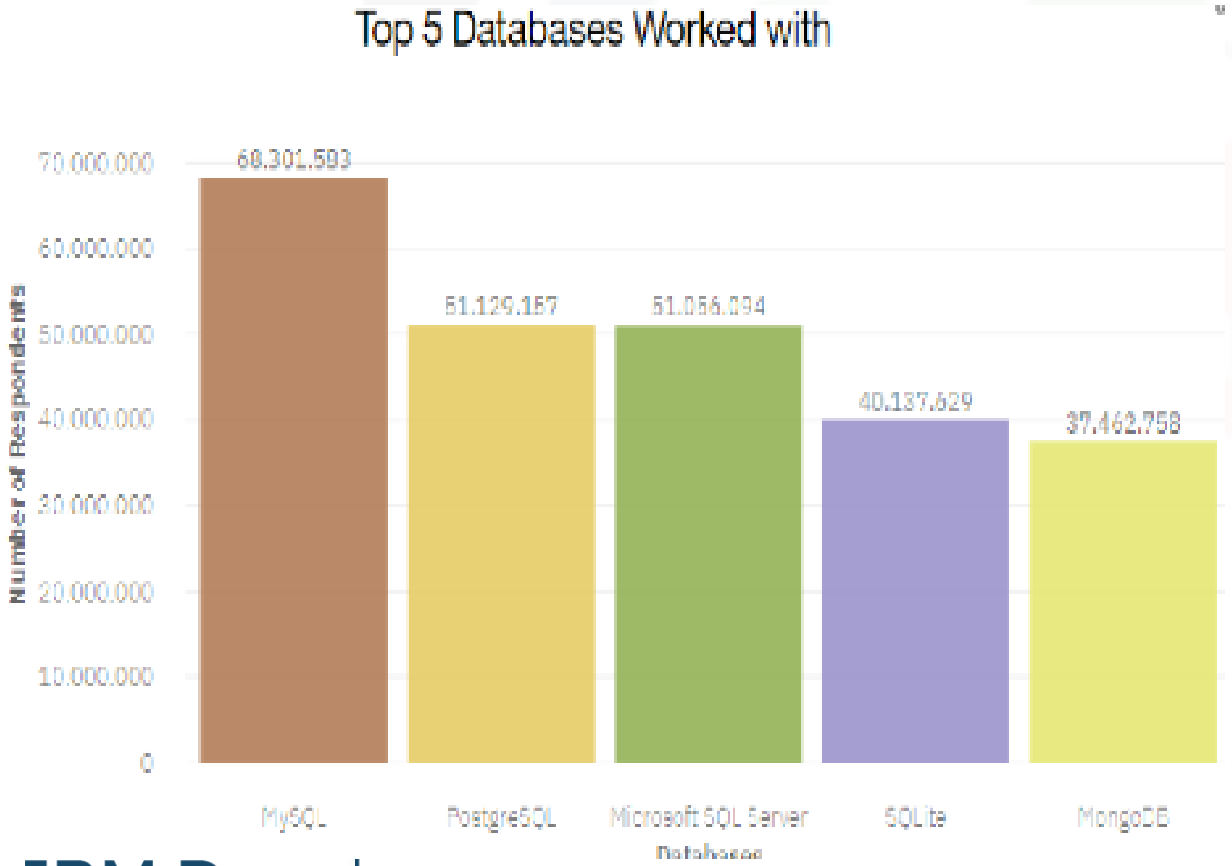
- Javascript seems to be the leading language.
- Python is the fastest growing.
- There is great interest in Typescript.

Implications

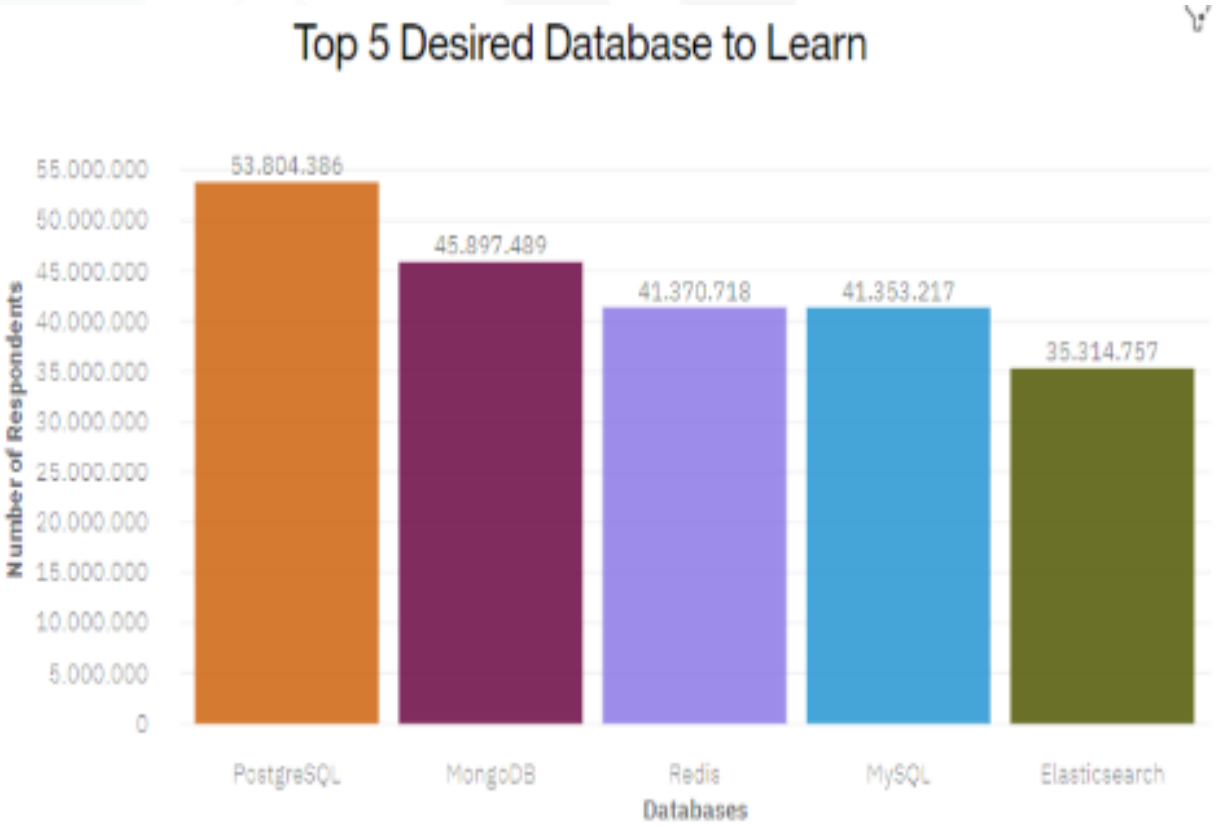
- Possible developer migration from Javascript to Typescript.

DATABASE TRENDS

Current Year



Next Year



IBM Developer

SKILLS NETWORK

DATABASE TRENDS - FINDINGS & IMPLICATIONS

Findings

- MySQL is the most used Database.
- Lack of interest in Microsoft SQL Server and SQLite.
- Increasing interest in PostgreSQL and MongoDB.

Implications

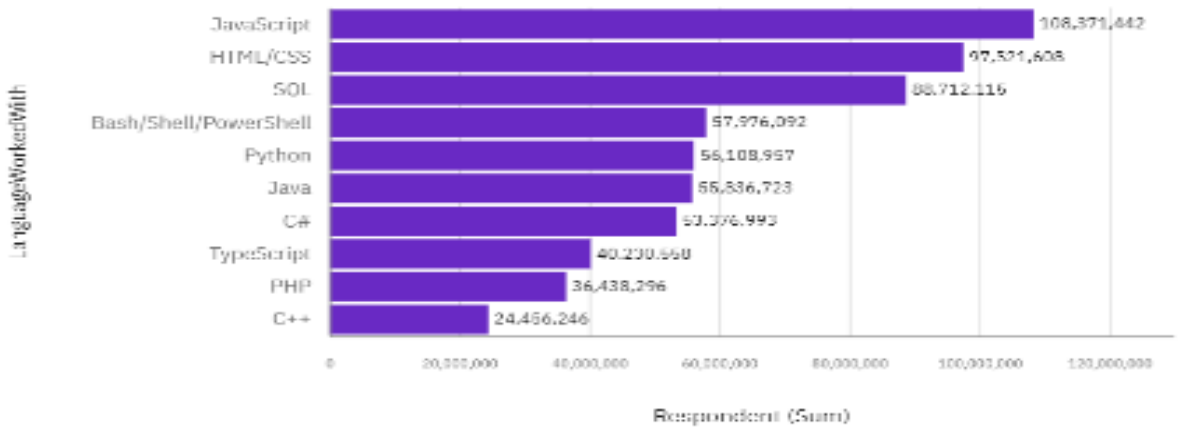
- Microsoft SQL Server and SQLite losing ground in the market.
- PostgreSQL and MongoDB gaining in popularity.

DASHBOARD

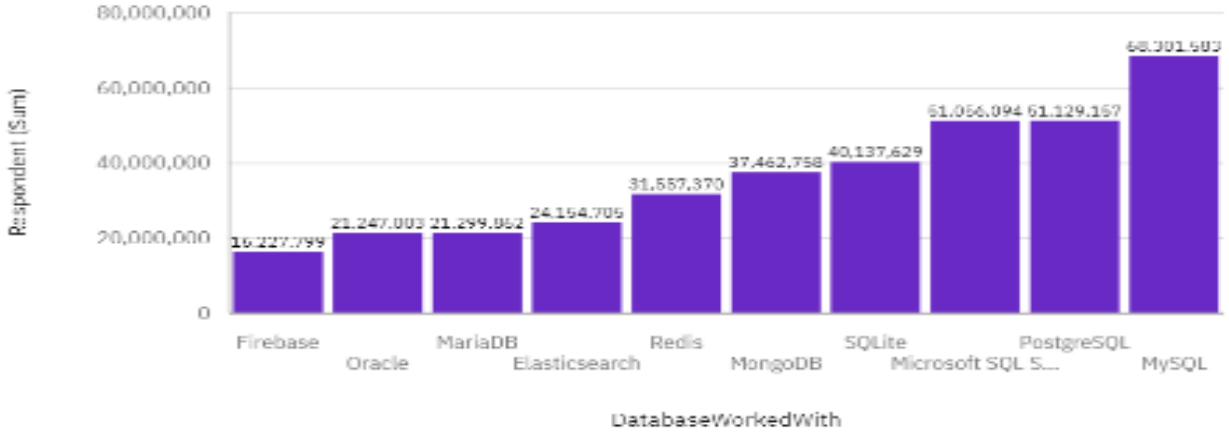
https://github.com/justinjcash/CapstoneDataAnalystCognosDashboards

Current Technology Use

Top 10 LanguageWorkedWith

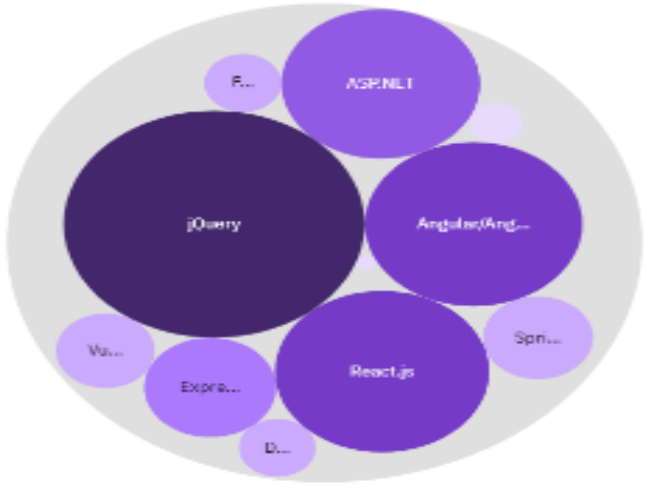


Top 10 DatabaseWorkedWith



Top PlatformWorkedWith

Top 10 WebFrameWorkedWith



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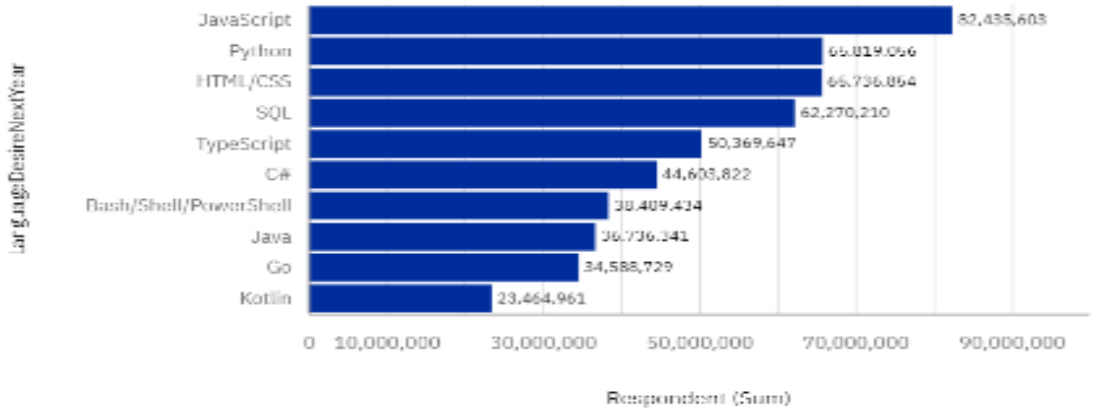
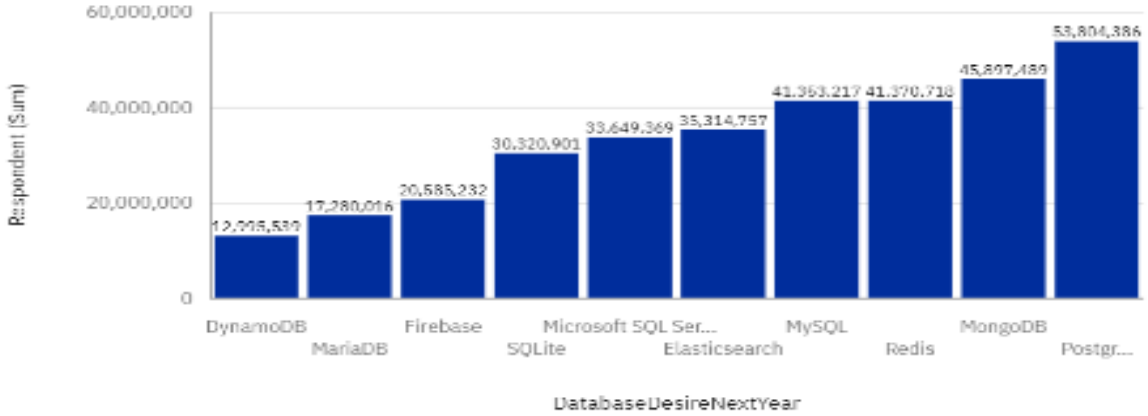
Future Technology Trends

FutureTechnologyTrend

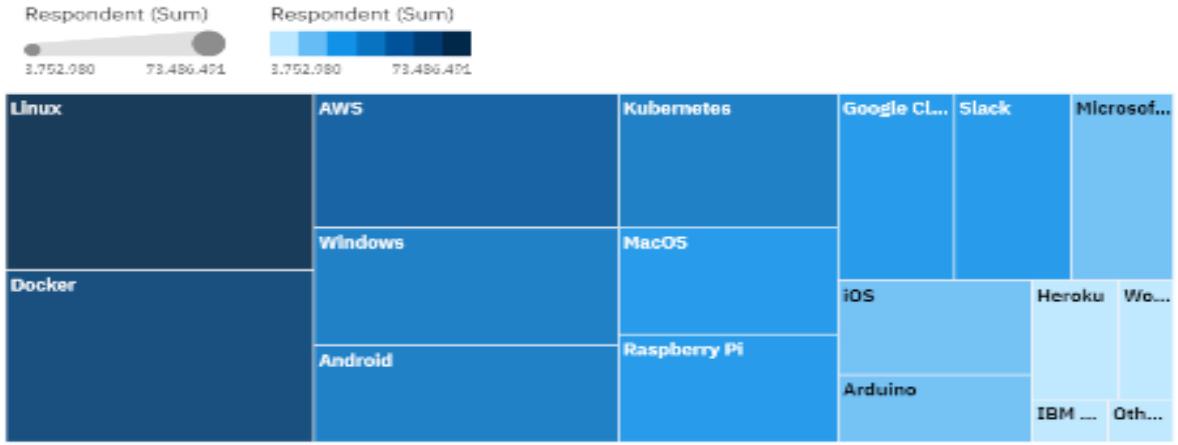
Top 10 LanguageDesireNextYear



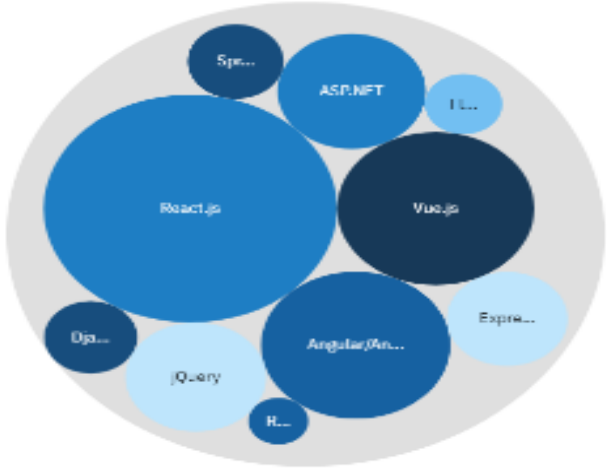
Top 10 DatabaseDesireNextYear



PlatformDesireNextYear



Top 10 WebFrameDesireNextYear



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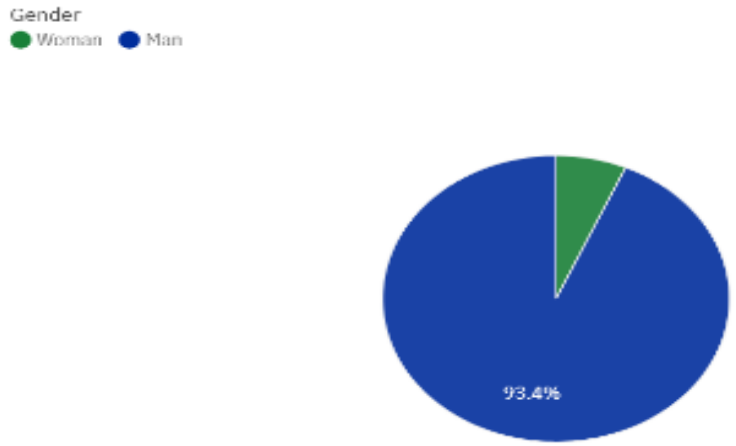
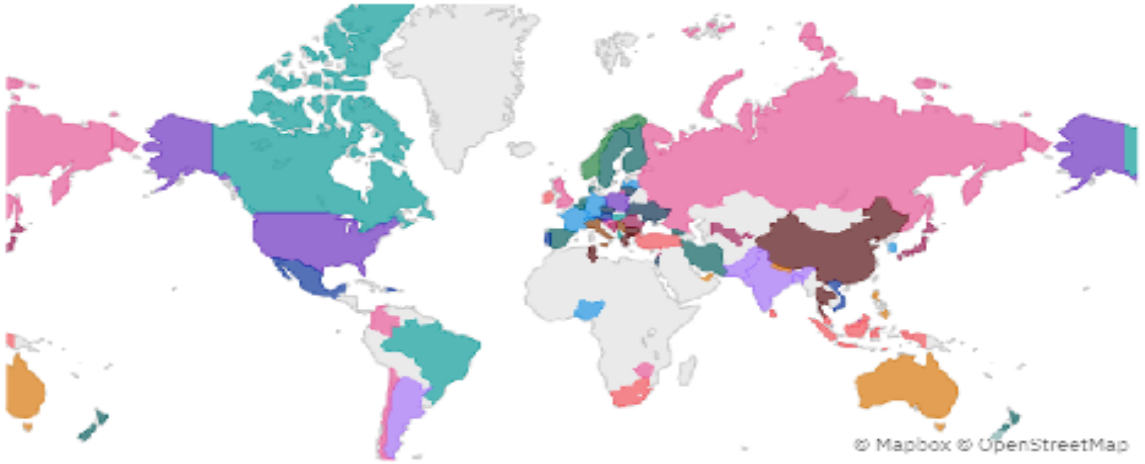
Demographics of Developers

Demographics

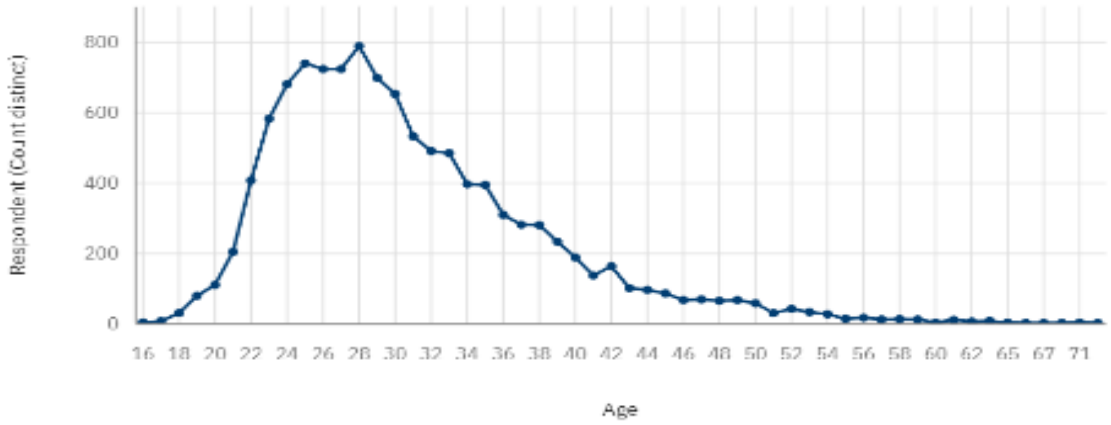
Respondent Classified by Gender



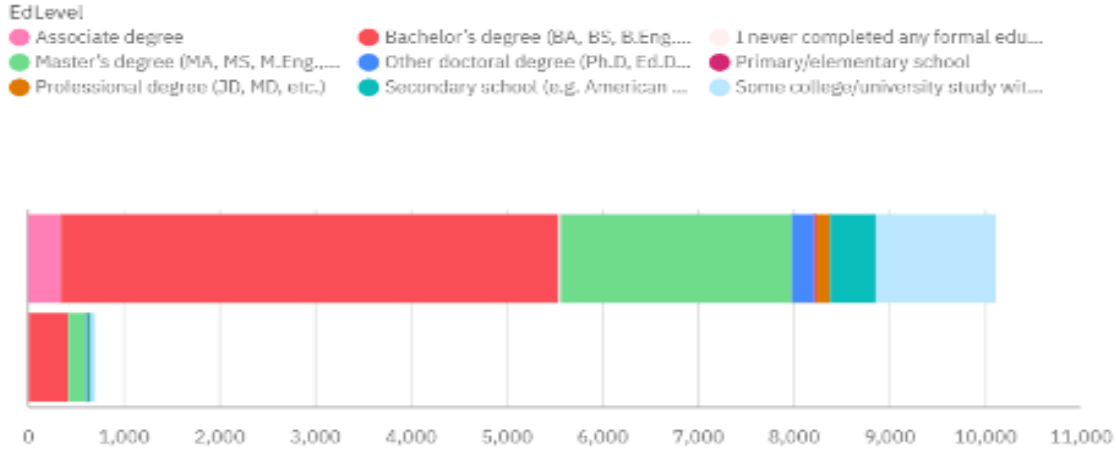
Respondent Count for Countries



Respondent by Age



Respondent Count by Gender and EdLevel



DISCUSSION

OVERALL FINDINGS & IMPLICATIONS

Findings

- Javascript widely used and Typescript gaining in popularity.
- Over 90% of developers are young males.
- Most developers live in developed countries.

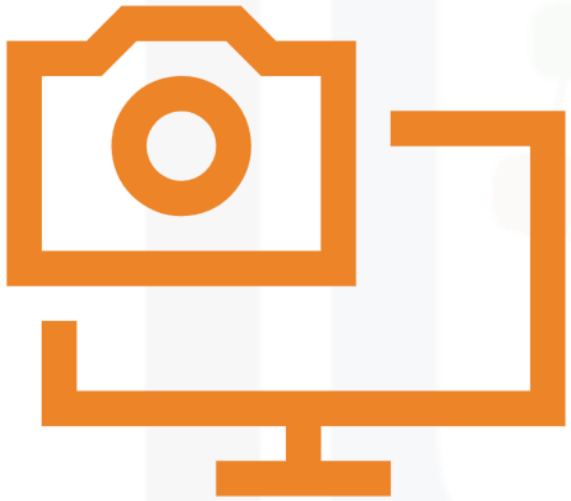
Implications

- Javascript and Typescript are popular and gaining traction.
- Global polarization of developers location and gender.
- Young developers with out postgrad studies are the majority.

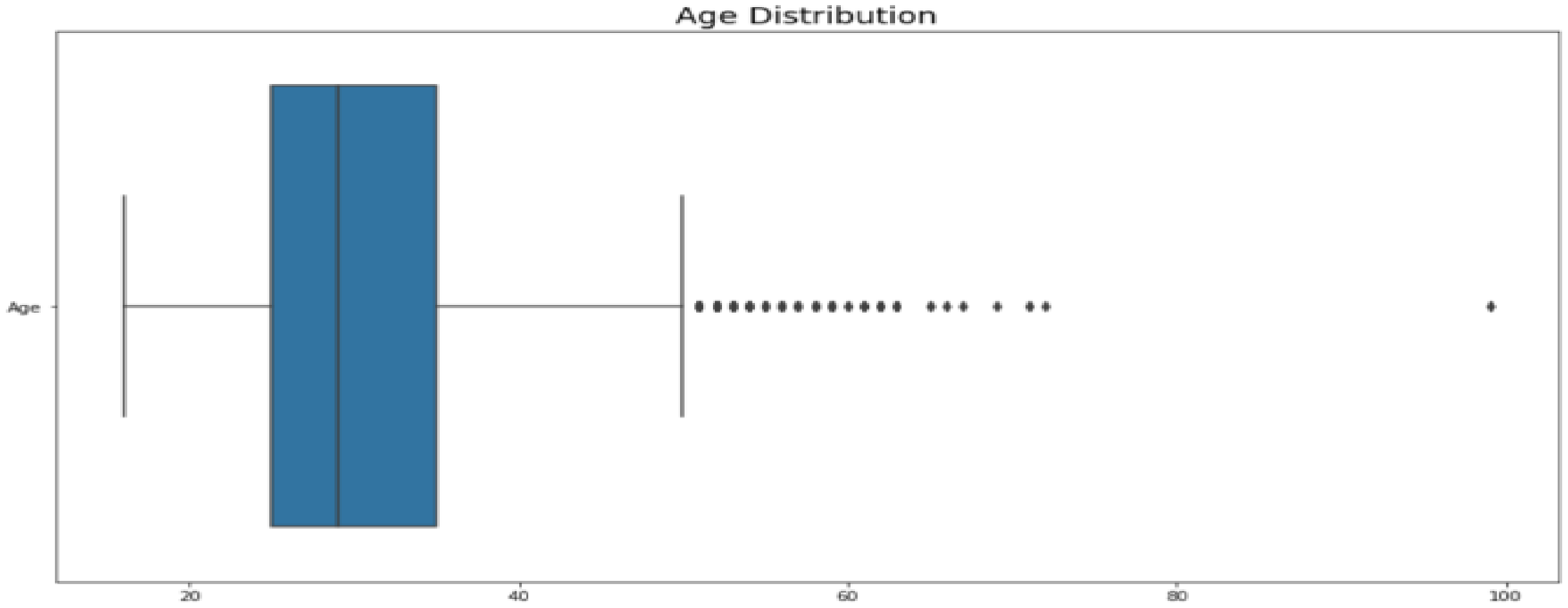
CONCLUSION

- Developers are people with very marked characteristics.
- A solid understanding of current and future technology trends can be obtained
- There are a lot of opportunities to spread the profession globally and be more inclusive to women,

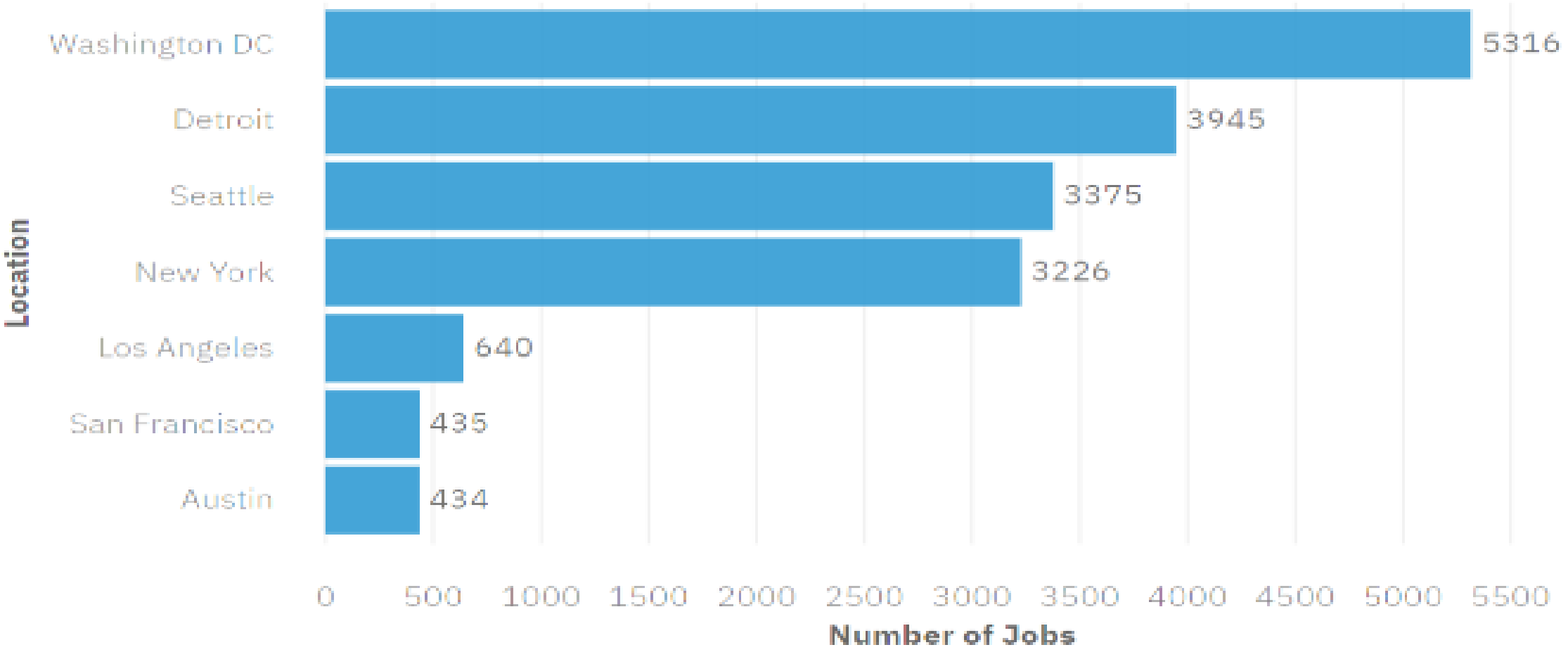
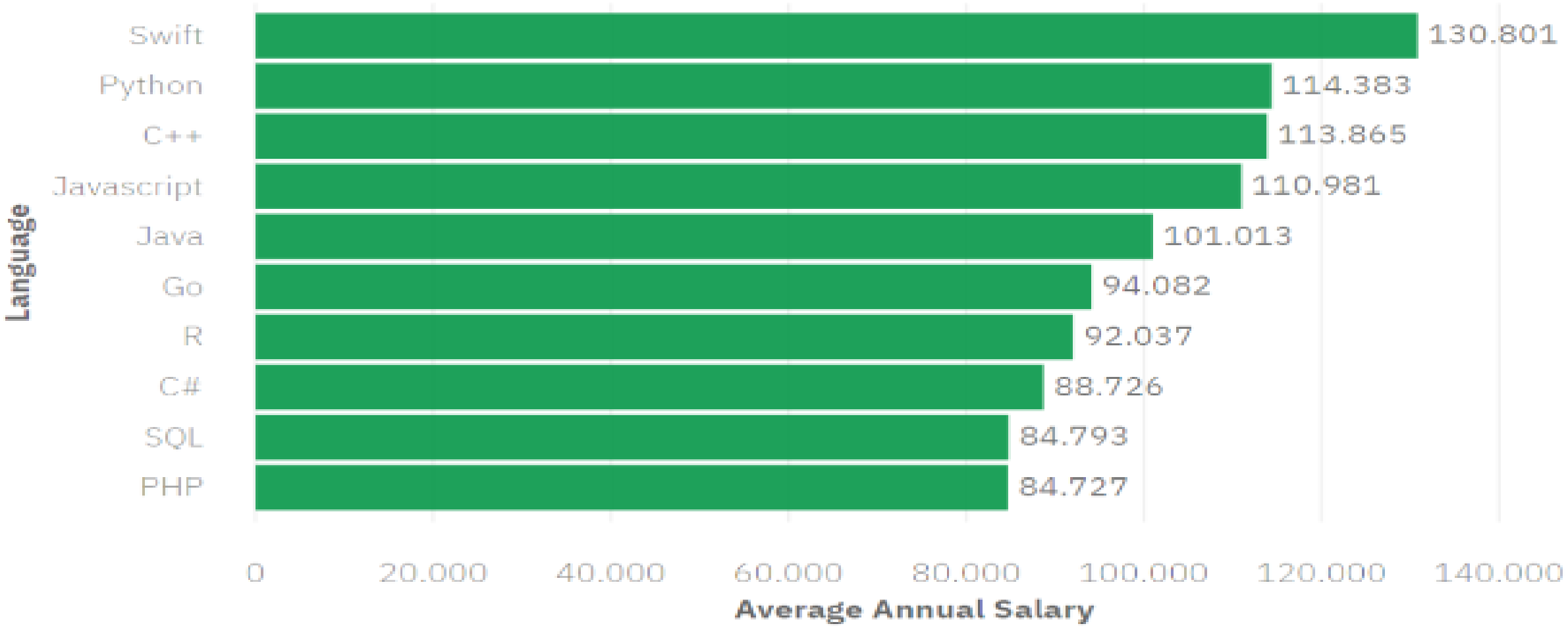
APPENDIX



Age Distribution among Developers



JOB POSTINGS



POPULAR LANGUAGES and Annual Salary