STACK OVERFLOW DEVELOPER SURVEY 2019

CHIBANI Abdelkader

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IBM Developer

SKILLS NETWORK

OUTLINE

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

EXECUTIVE SUMMARY

- Data contextualization and analysis goal.
- Methodology description.
  - Data gathering.
  - Data analysis.
  - Data visualization.
- Results presentation supported with graphs and trends.
- Discussions of overall findings and implication 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 in the world.
- Results don’t represent everyone in community evenly.
- Nearly 90000 developers.
- Trends to predict where the developers are going.
- Characterization of developers around the globe.

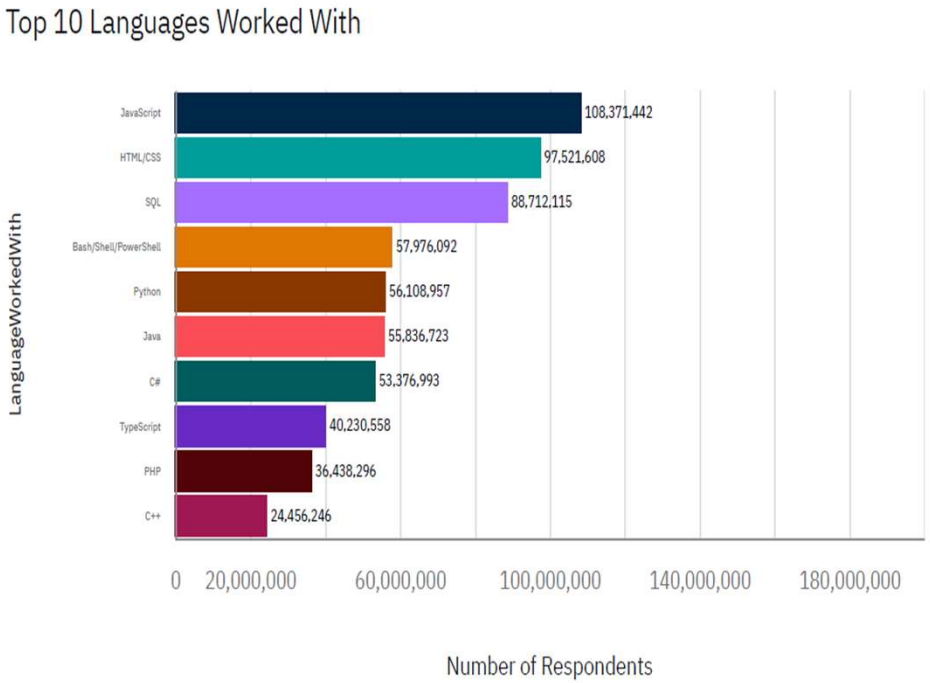
METHODOLOGY

- Collect survey data and explore its content.
  - Web scraping.
  - APIs.
  - Request library.
- Data Wrangling.
- Exploratory Data Analysis.
  - Analyzing data distribution.
  - Handling outliers.
  - Correlation.
- Data Visualization.
  - Highlight distribution of data, relationships, the composition and comparison of data.
- Dashboards.

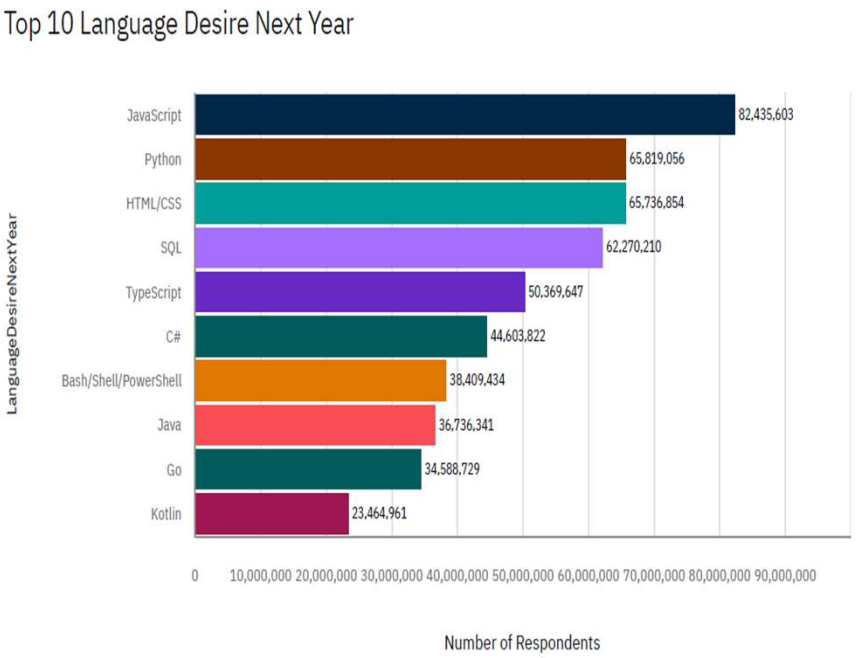
RESULTS

PROGRAMMING LANGUAGE TRENDS

Current Year



Next Year



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PROGRAMMING LANGUAGE TRENDS - FINDINGS & IMPLICATIONS

Findings

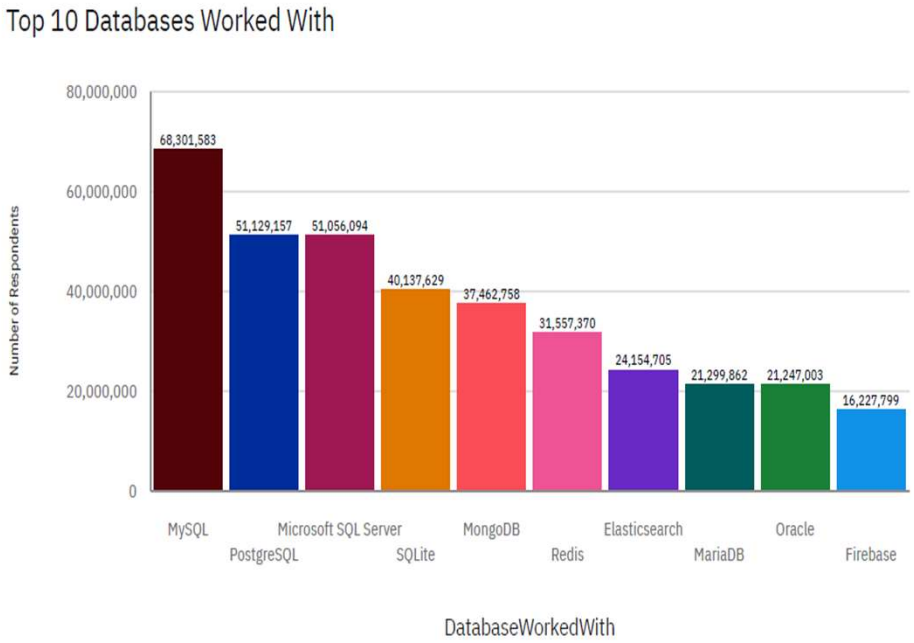
- JavaScript seems to keep as leading language.
- Python fastest-growing.
- Great Interest in TypeScript.

Implications

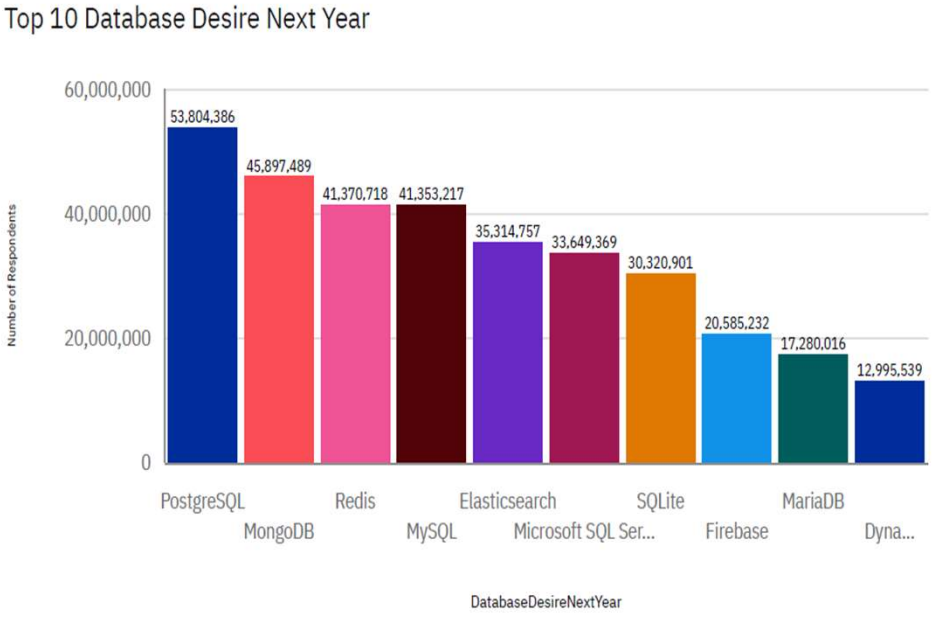
- Possible developers migration from JavaScript to TypeScript.

DATABASE TRENDS

Current Year



Next Year



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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.

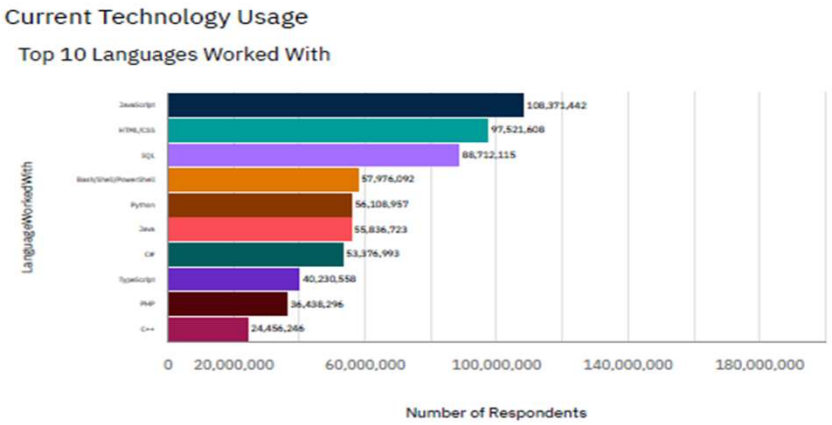
Implications

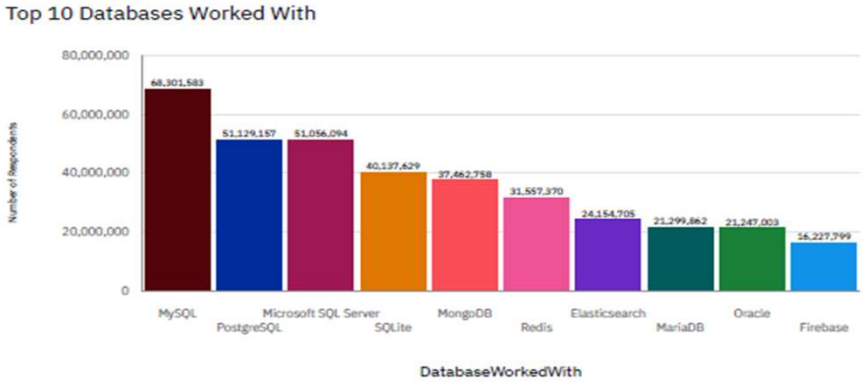
- Microsoft SQL Server and SQLite losing ground in the market.
- PostgreSQL and MongoDB establishment in the market.

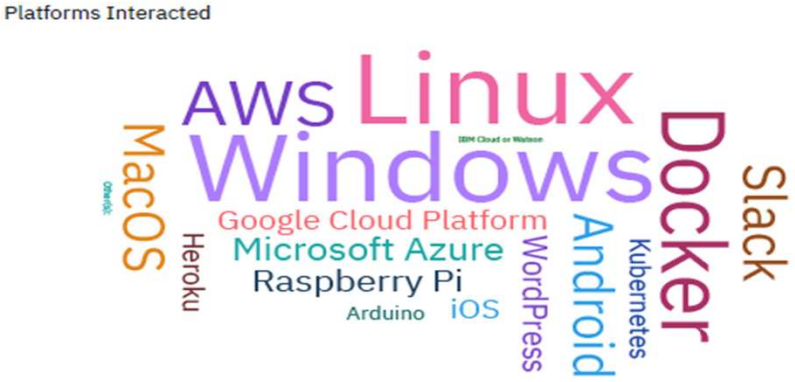
DASHBOARD

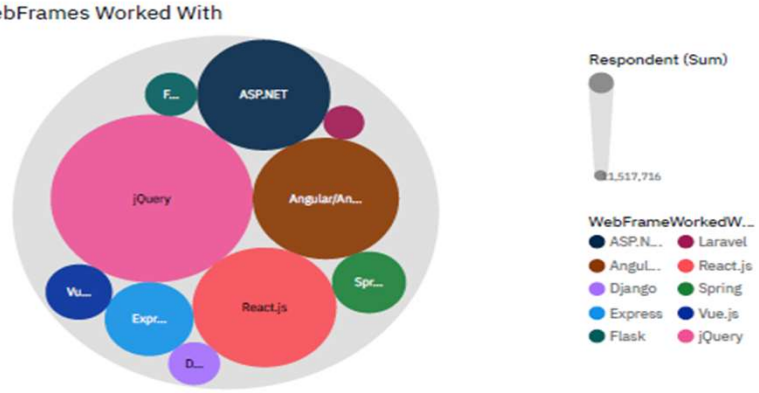
https://github.com/CHIAEK/IBM-Data-Analyst-Capstone-Project/blob/main/Dashboard%20with%20Cognos%20Analytics.pdf

CURRENT TECHNOLOGY USAGE









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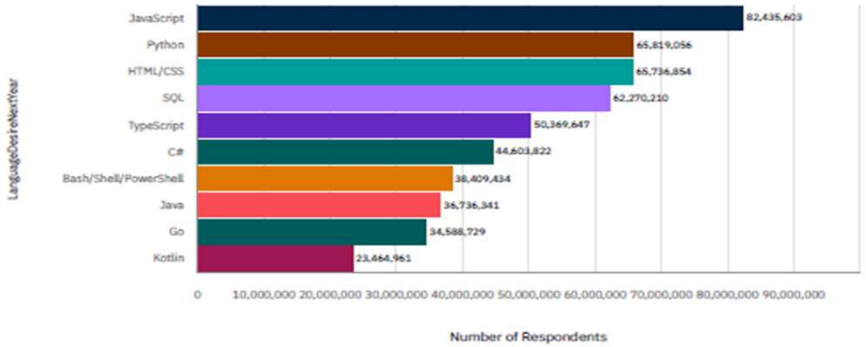
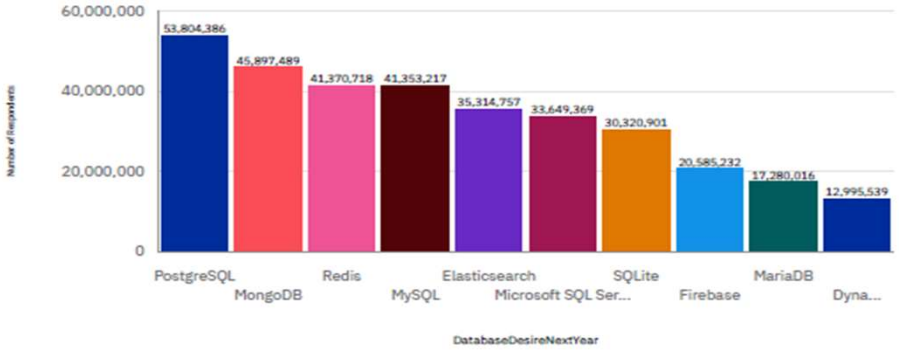
FUTURE TECHNOLOGY TREND

Future Technology Trend

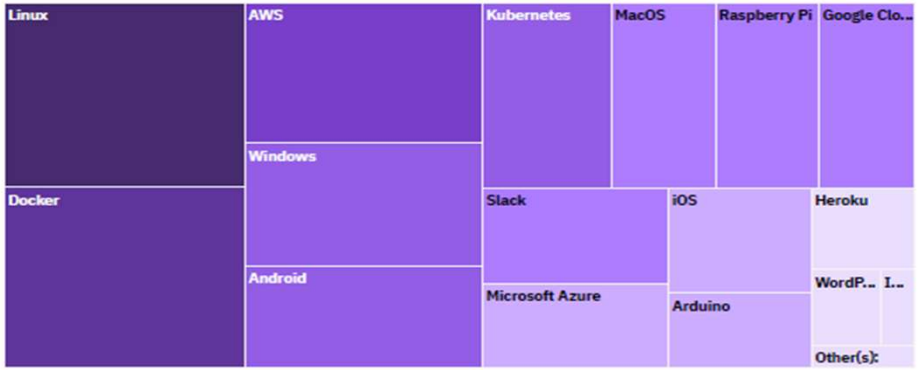
Top 10 Language Desire Next Year



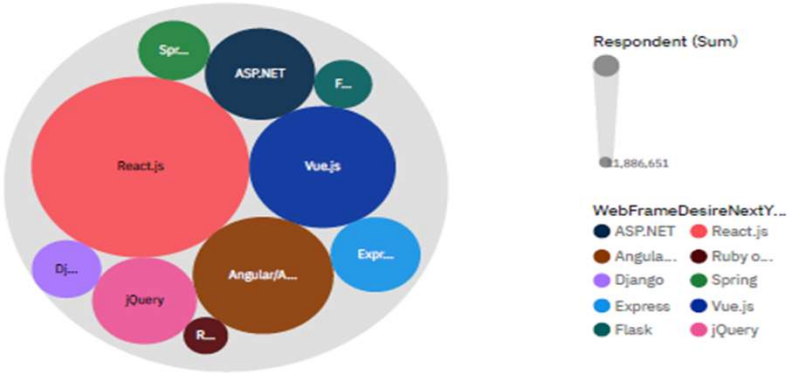
Top 10 Database Desire Next Year



Platforms Desire Next Year



WebFrames Desire Next Year



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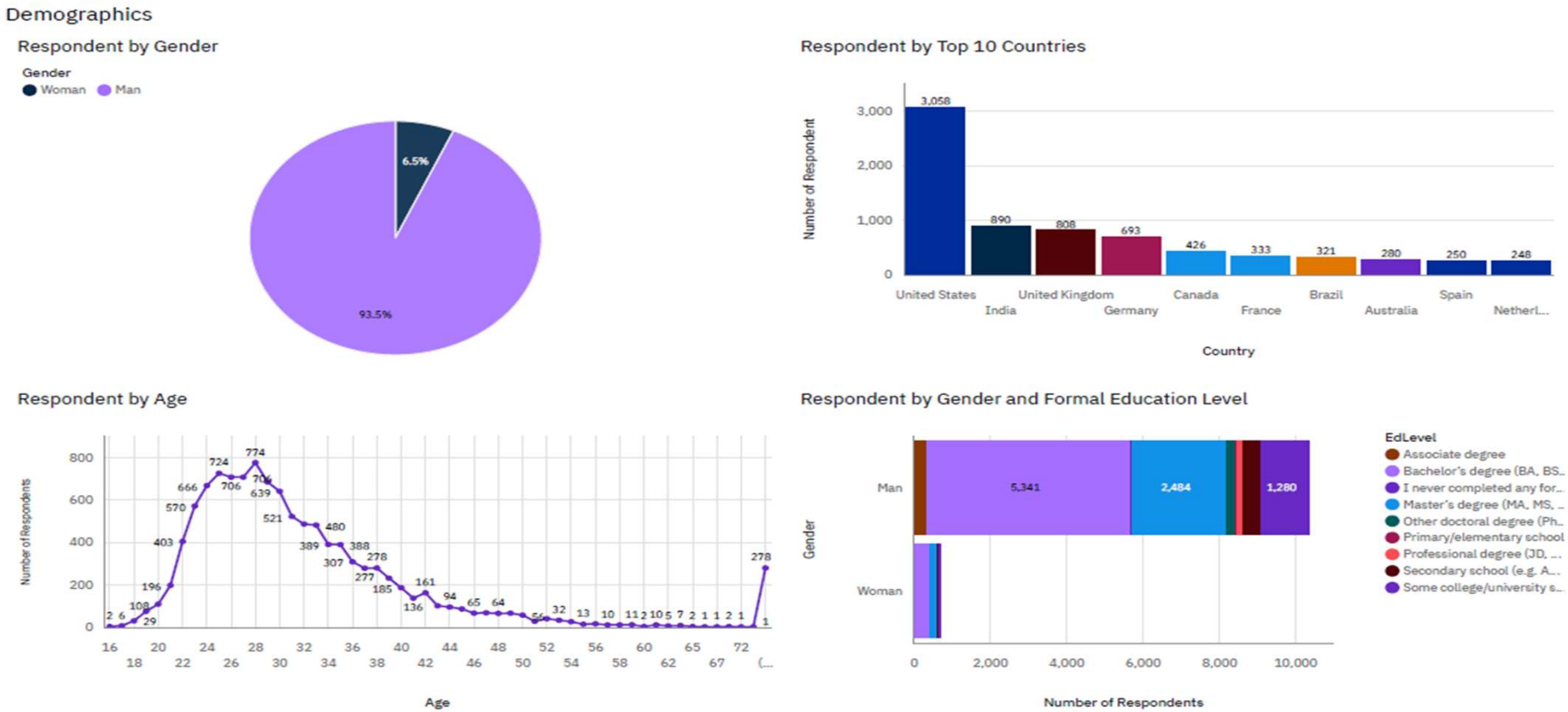
DEMOGRAPHICS



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DISCUSSION

OVERALL FINDINGS & IMPLICATIONS

Findings

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

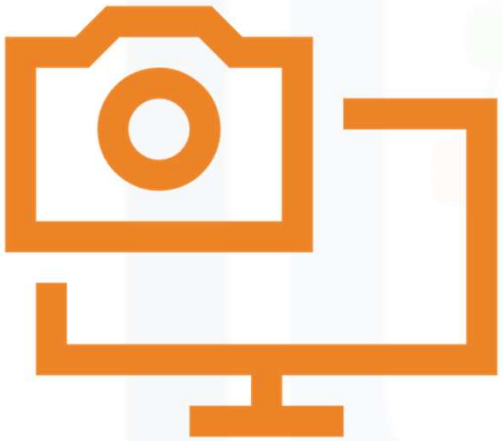
Implications

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

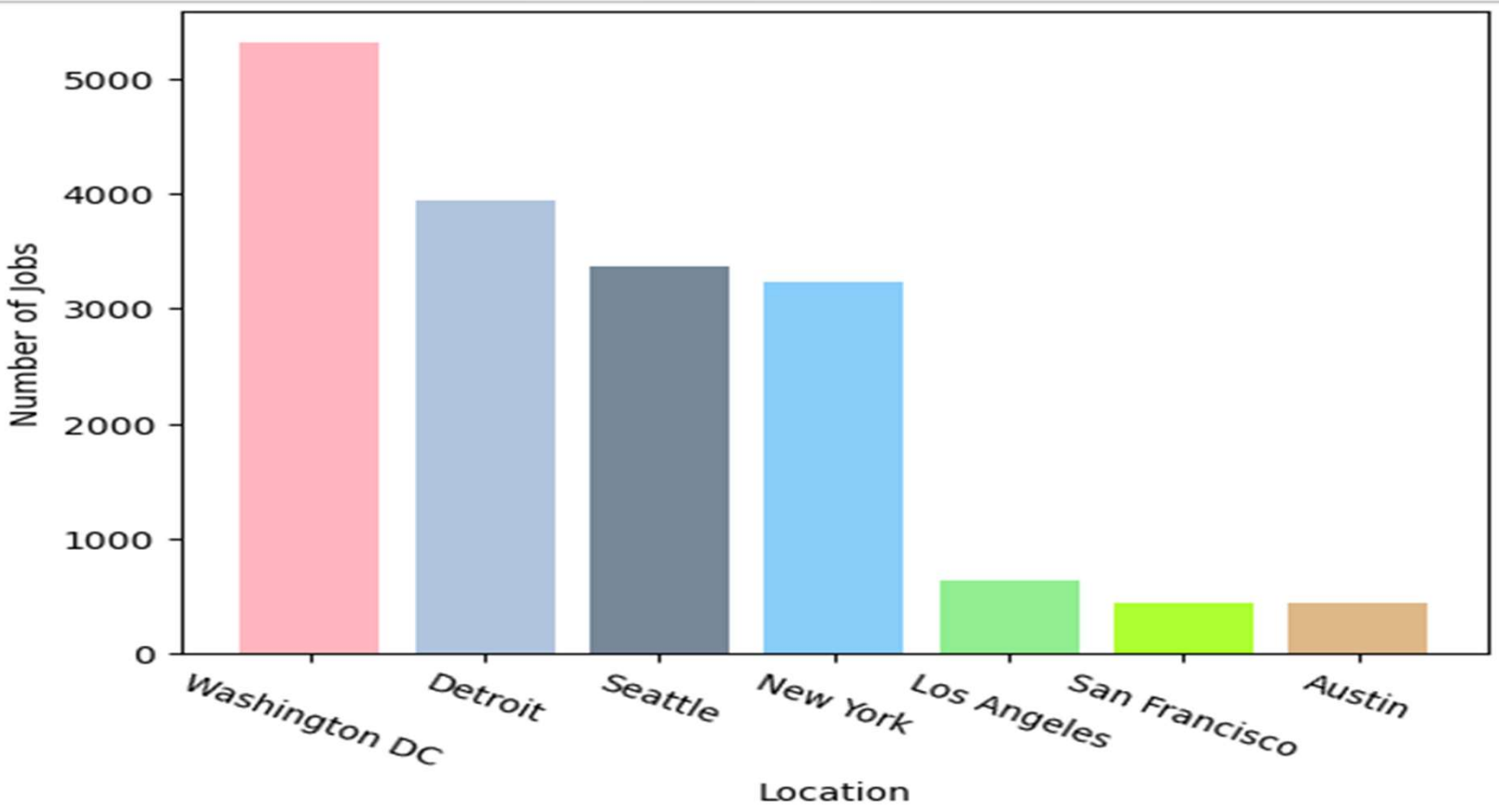
CONCLUSION

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

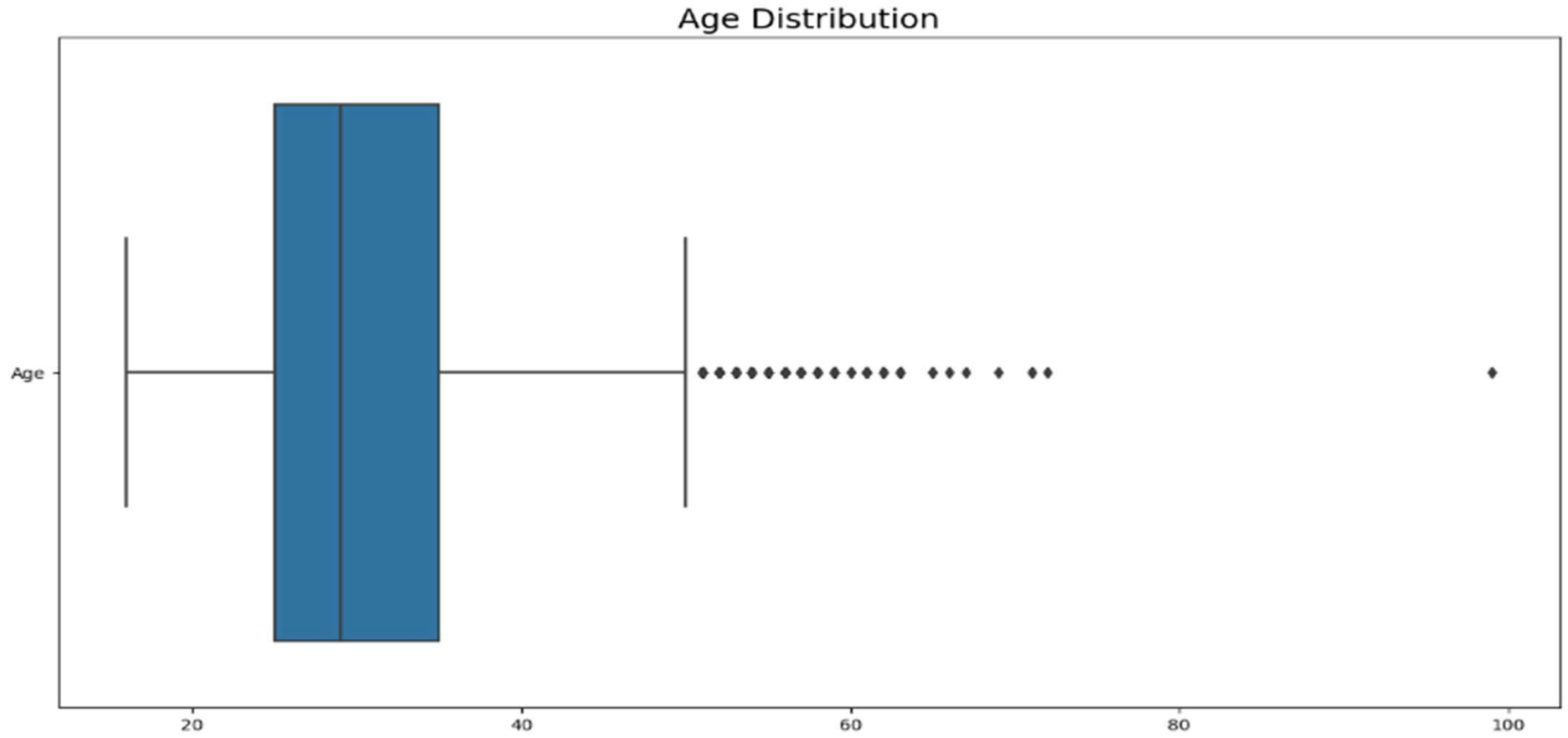
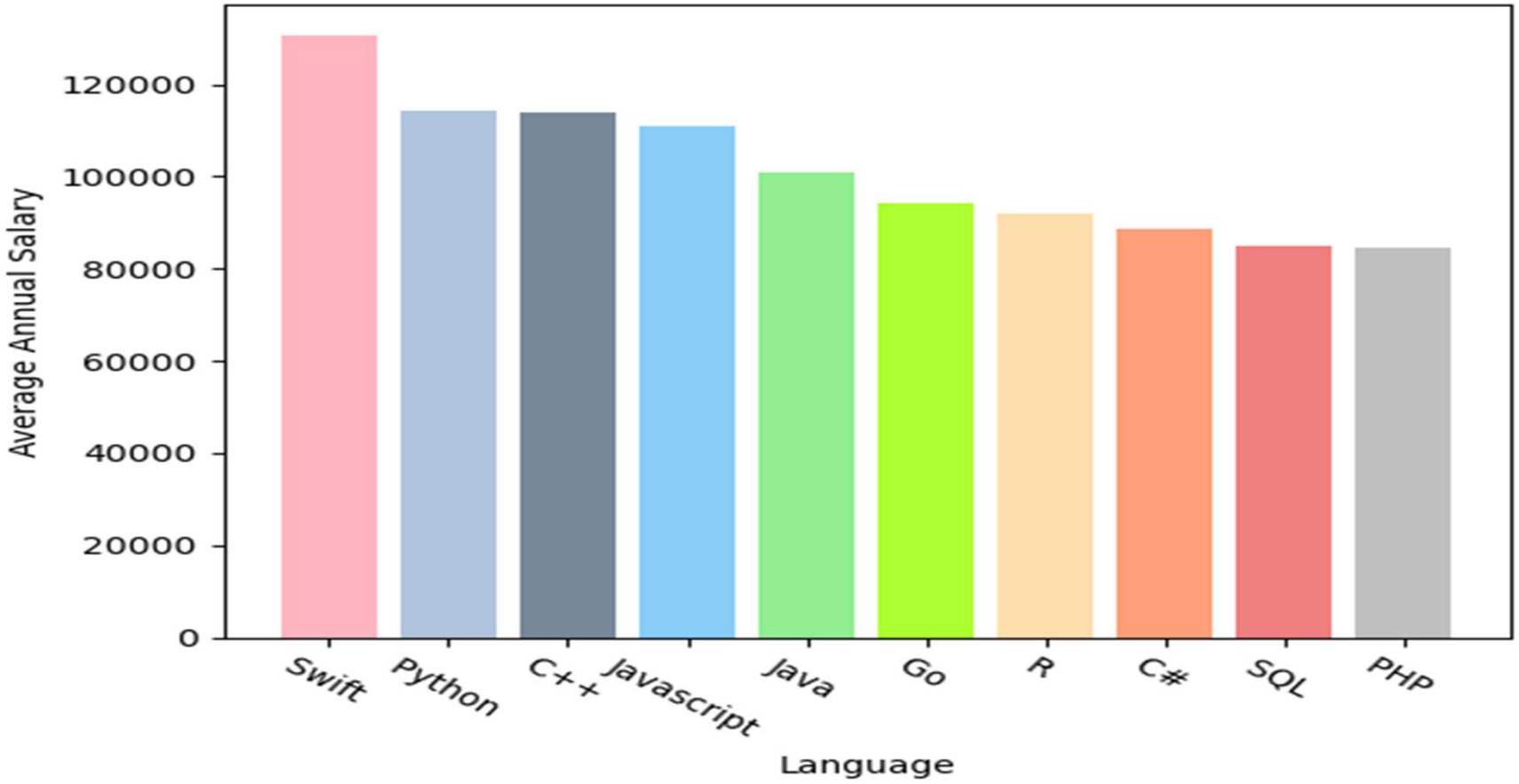
APPENDIX



JOB POSTINGS



AGE DISTRIBUTION BOXPLOT



POPULAR LANGUAGES