



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



- Different ways of handling data.
- Data Visualization.
 - Current Technologies
 - Desired Technologies for next year.
- Insights from our findings for each of the different kind of Technology.
- Discussion for the overall findings and conclusion.
- Additional chart that occurred during data exploration.

INTRODUCTION



- Stack Overflow Developer Survey is the largest and most comprehensive survey for developers around the world with almost 100 000 participants.
- This presentation aims to target business owners looking for people to hire in the sector highlighting both current skill requirements but also potential future skill requirements.
- All recommendations are stated based on the analysis of the specific data set and results will be presented in both graph and text format.

METHODOLOGY



- We started by collecting and cleaning different Subsets of the Dataset using web scraping techniques and APIs.
- We then sort the data into meaningful tables and data frames where we used different techniques to explore the data and find correlations between the variables.
- We then created Visualizations from our findings so we can better understand the insides of our set.
- And Finally created interactive dashboards using IBM's Cognos Analytics where we can use the filters to see different stats and trends based on specific variables
 - Current Technology Trends
 - Future Technology Trends
 - Demographics

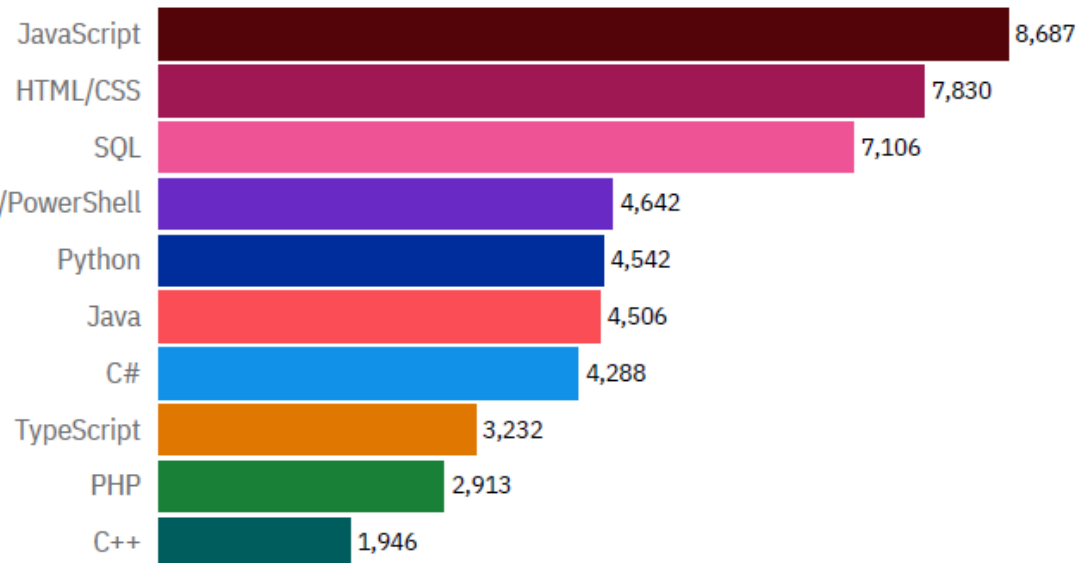
RESULTS



PROGRAMMING LANGUAGE TRENDS

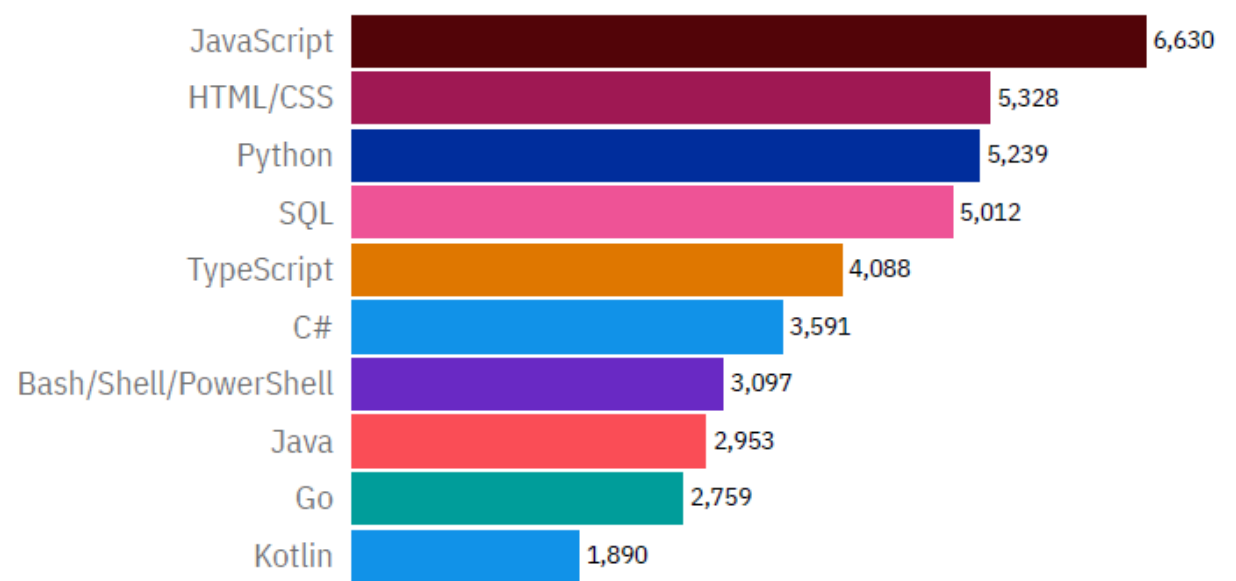
Current Year

Top 10 Languages People Worked With



Next Year

Top 10 Desired Languages For Next Year



PROGRAMMING LANGUAGE TRENDS - FINDINGS & IMPLICATIONS

Findings

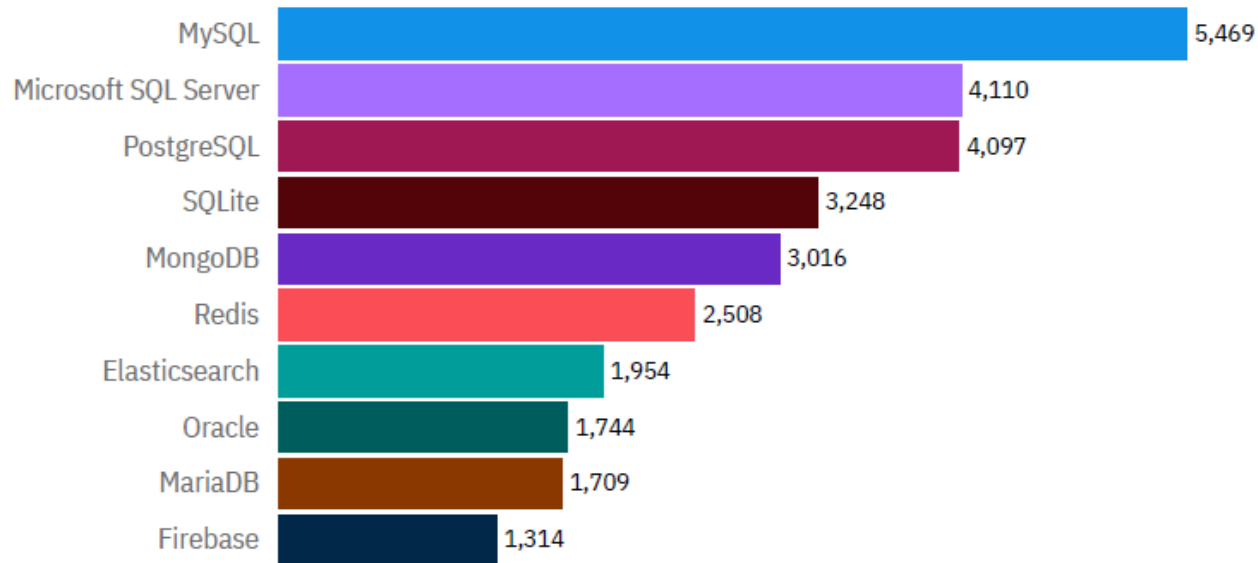
- Java Script seems to be the leading language developers use and what to use in the future aswel.
- Python and Type Script gaining interest for the coming year.
- Bash/Shell/PowerShell not so popular anymore.

Implications

- Might be beneficial to hire more Python and TypeScript developers.
- Should not be so interested in people working with Bash/Shell/PowerShell.
- Continue to employ people working with Java Script.

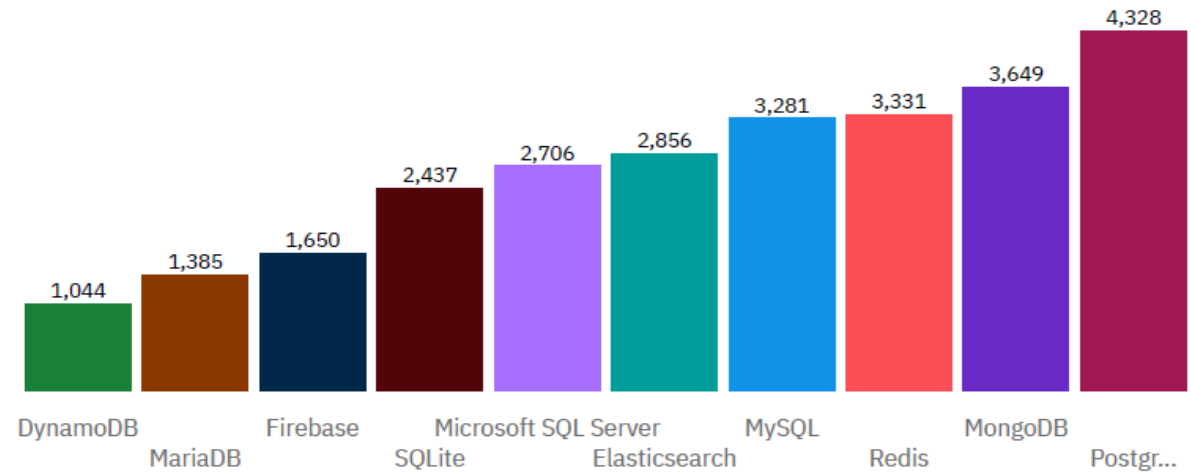
DATABASE TRENDS

Current Year



Next Year

Top 10 Desired Databases For Next Year



DATABASE TRENDS - FINDINGS & IMPLICATIONS

Findings

- Even though people use Microsoft SQL server and MySQL at the moment, they are not so interested in it for the future.
- PostgreSQL and MongoDB becoming the most popular databases for the next year.
- Redis and Elasticsearch gaining traction.

Implications

- We might need to hire more people with PostgreSQL and MongoDB experience to improve our team.
- Use resources to train our existing team for the transition.

DASHBOARD

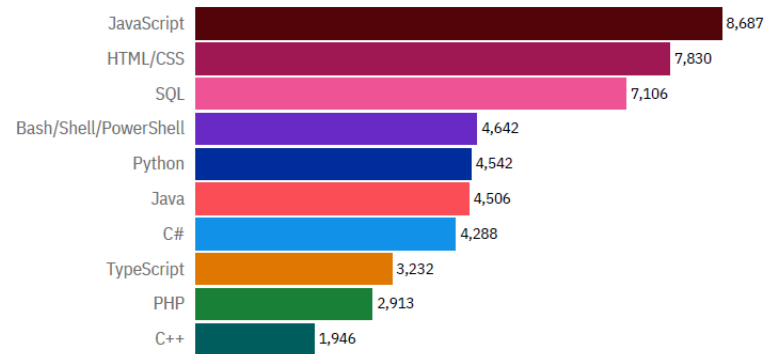


<https://github.com/marinos32/IBM-Capstone-Project/blob/main/IBM%20Capstone%20Project%20Dashboard.pdf>

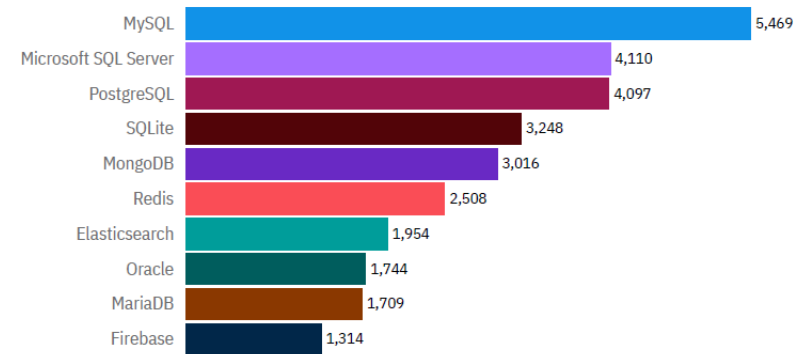
DASHBOARD TAB 1

Current Technology Usage

Top 10 Languages People Worked With



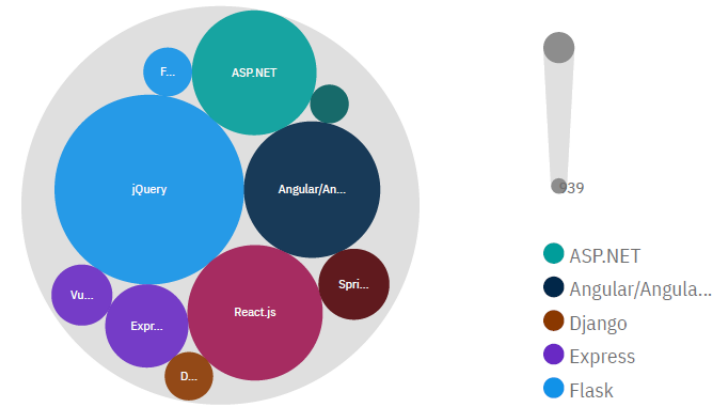
Top 10 Databases People Worked With



Platforms People Worked With



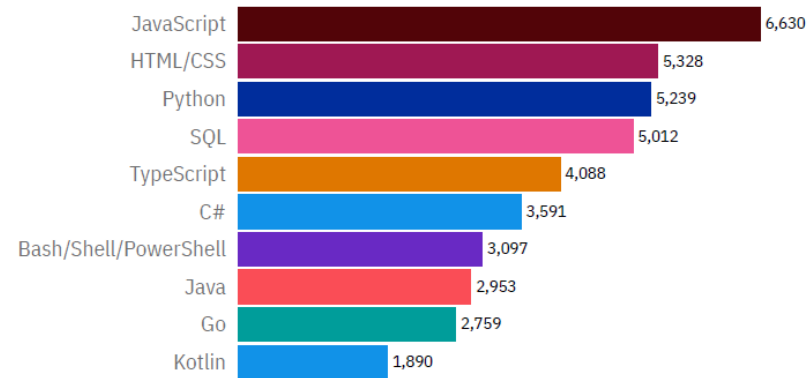
Top 10 Web Frames People Worked With



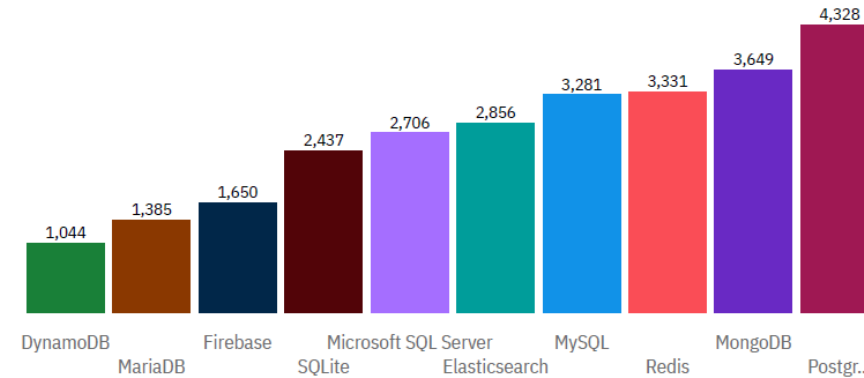
DASHBOARD TAB 2

Future Technology Trend

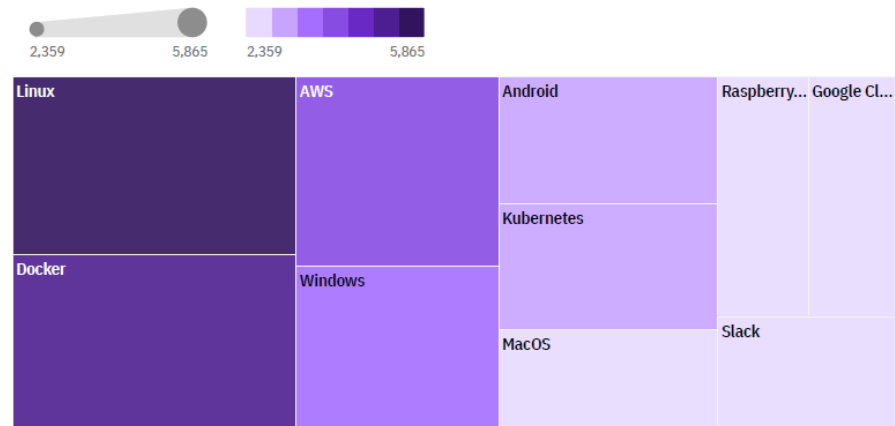
Top 10 Desired Languages For Next Year



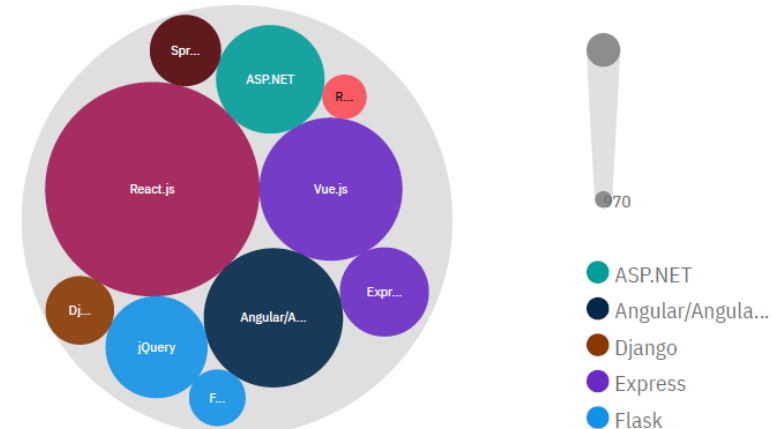
Top 10 Desired Databases For Next Year



Top 10 Desired Platforms For Next Year



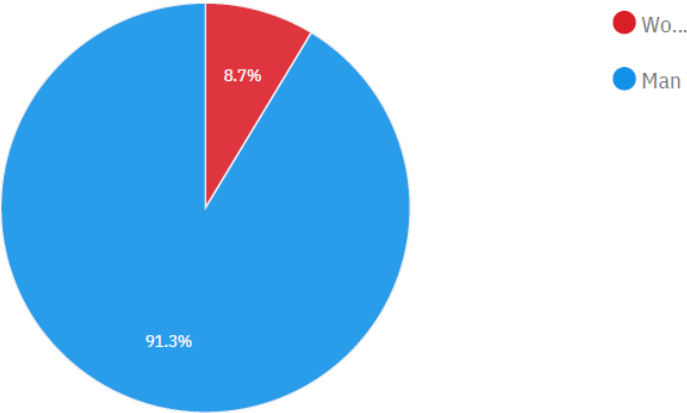
Top 10 Desired Web Frames For Next Year



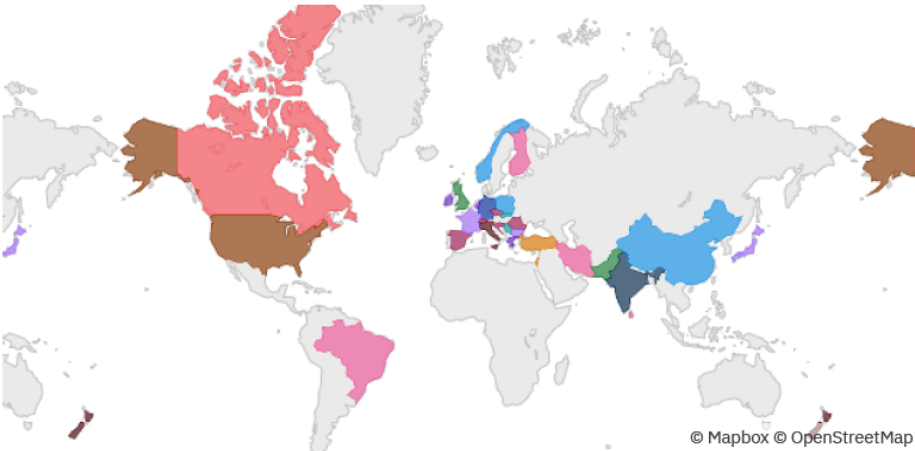
DASHBOARD TAB 3

Demographics

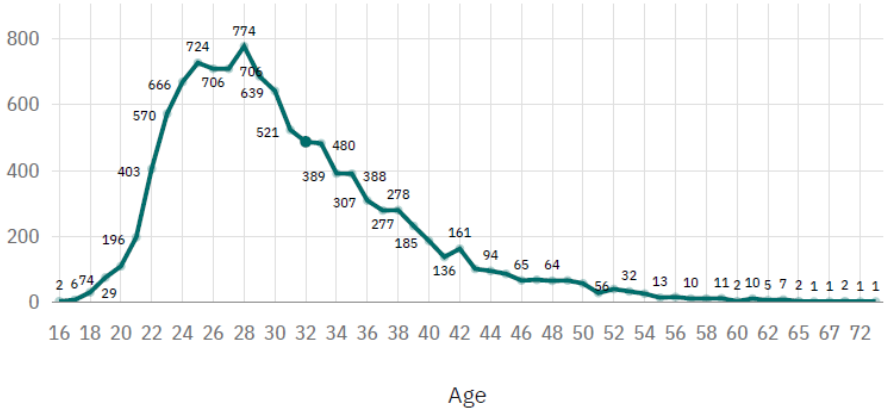
Respondents by Gender



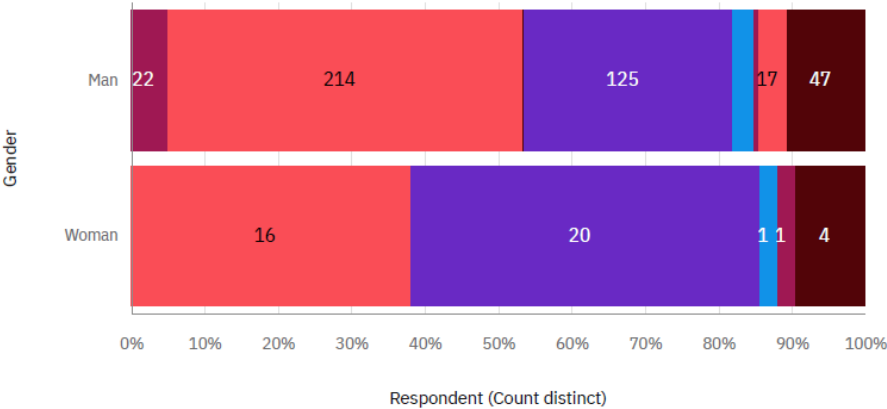
Respondents By Country



Respondents by Age



Respondents by Gender colored by Education Level



DISCUSSION



OVERALL FINDINGS & IMPLICATIONS

Findings

- The majority of developers are men from developed countries.
- Linux and Docker is gaining traction over Microsoft Windows for the next year.
- What is popular now might not be so popular in the future.

Implications

- Continue to hire people working with the popular technologies.
- Make adjustments to the ones who don't.
- Be ready to adapt to the situations.

CONCLUSION

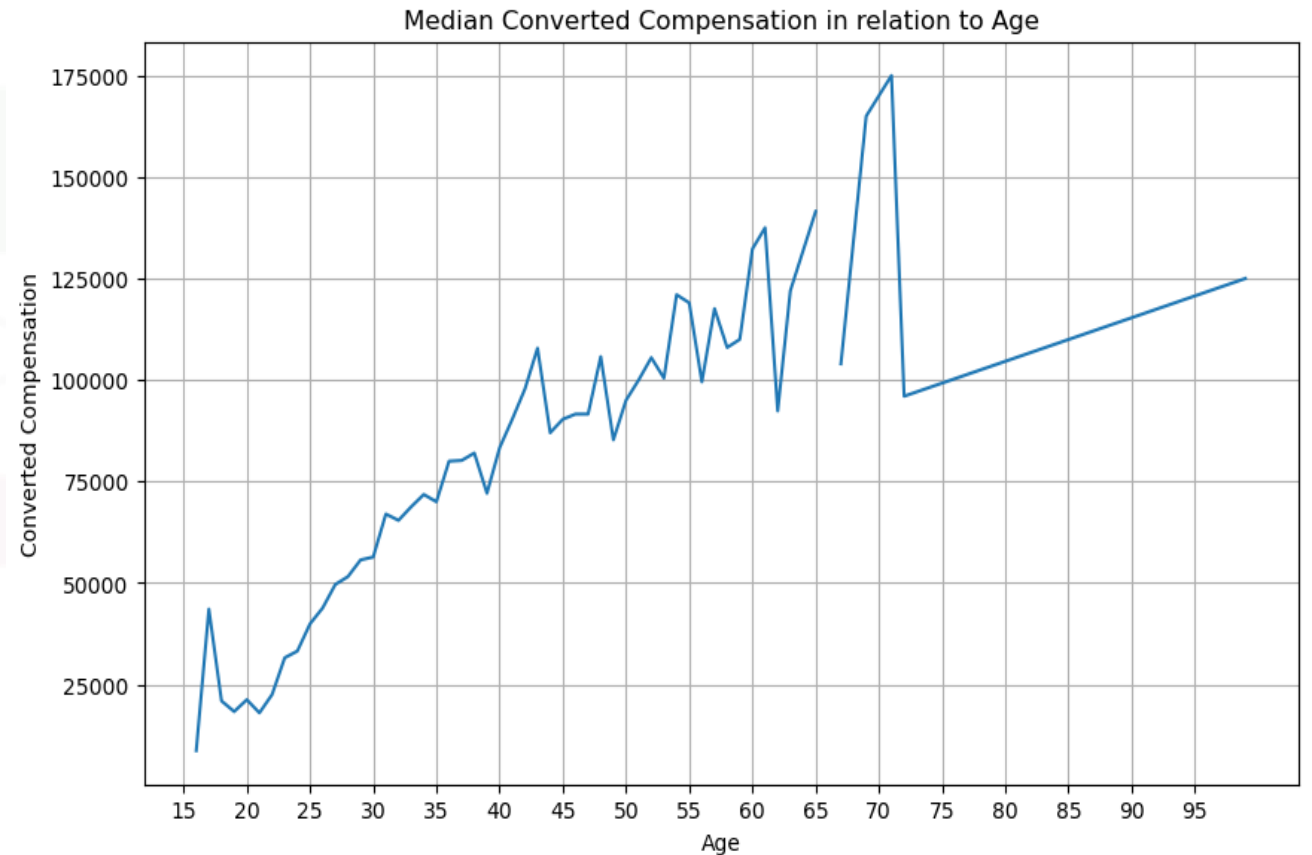
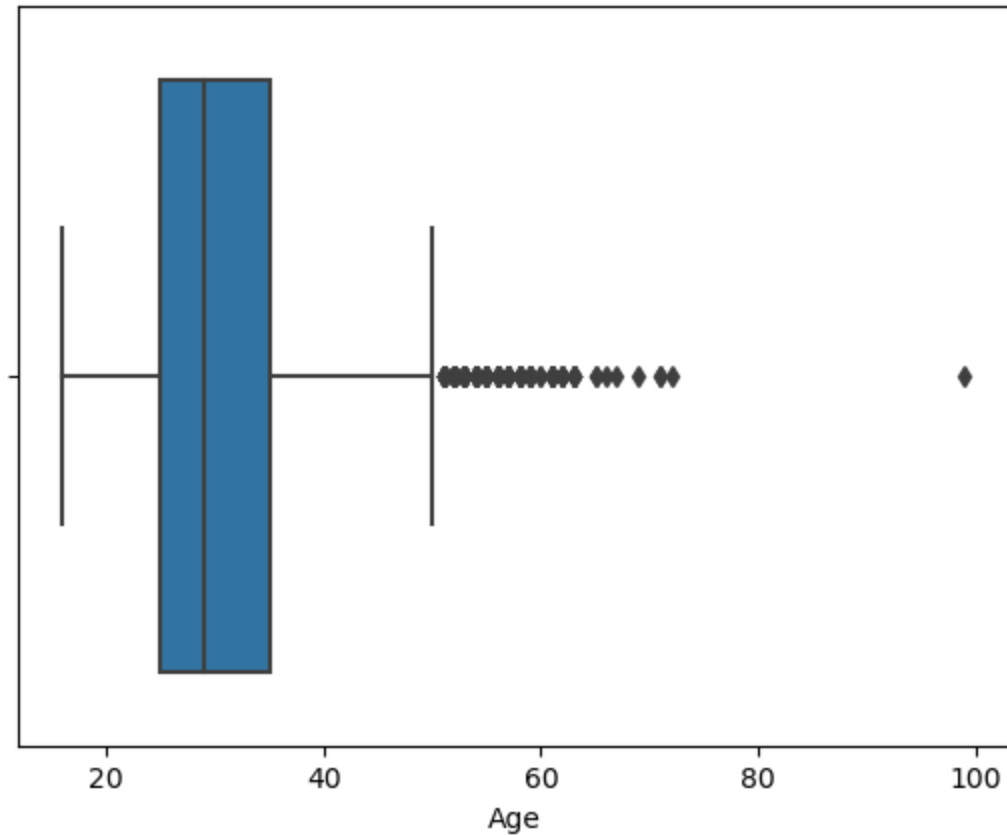


- We need to constantly look for the trends in technology and make the required adjustments with our team.
- Allocate a budget for training our team , hiring new people and be ready to transition in the new technologies.

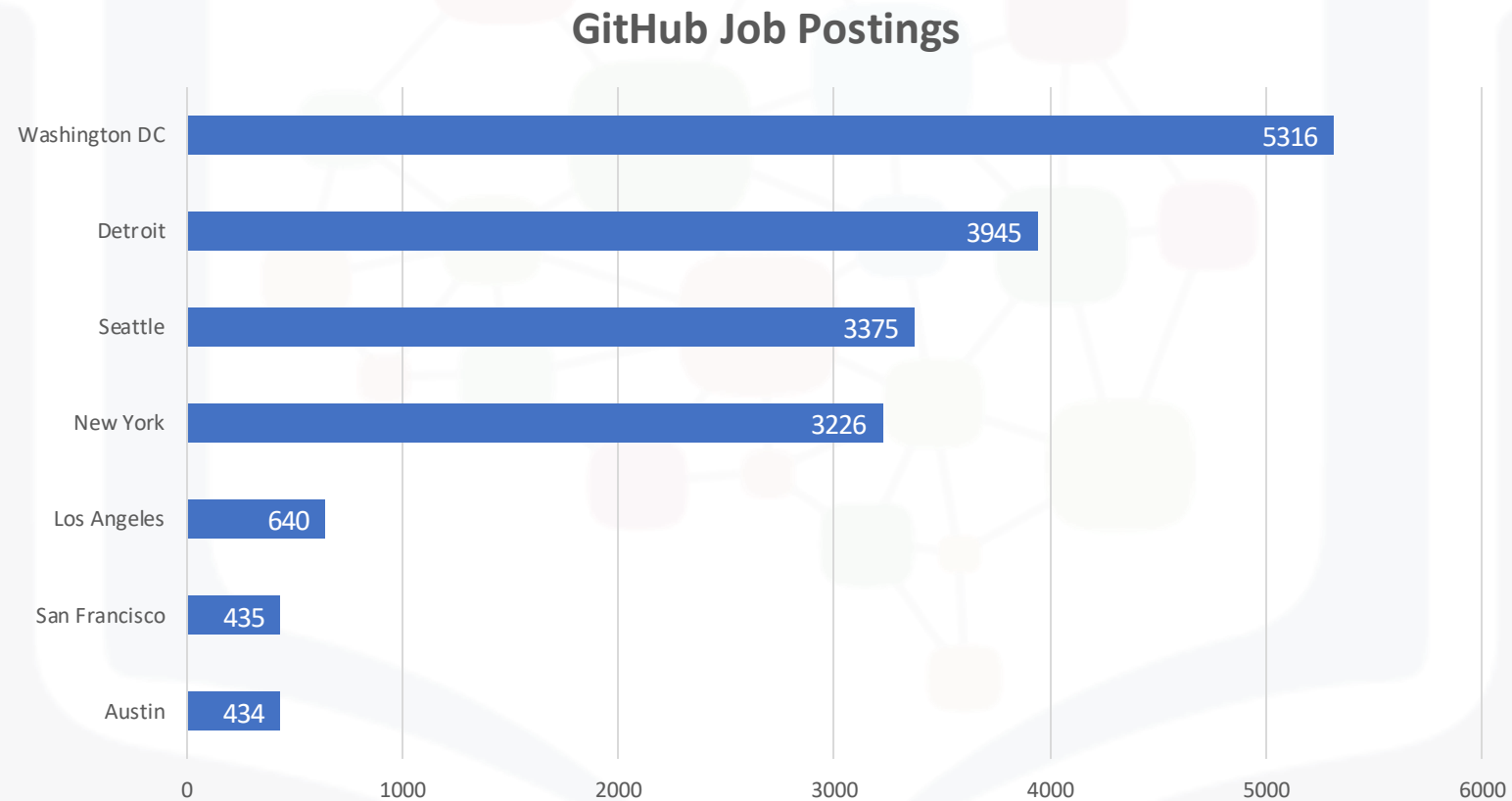
APPENDIX



Additional Charts



JOB POSTINGS



POPULAR LANGUAGES

