DATA ANALYST PRESENTATION

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OUTLINE

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

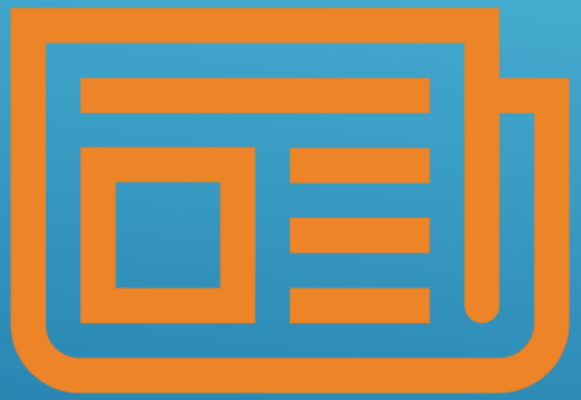
EXECUTIVE SUMMARY

- **Data contextualization and analysis goal**
- **Methodology description**
  - Data gathering
  - Data wrangling
  - Data analysis
  - Data visualizations
- **Results presentation supported with graphs and trends**
- **Discussion of overall findings and implications regarding the results previously exposed**
- **Final conclusions of the carried-out research**

INTRODUCTION

- This presentation is based upon the **Stack Overflow's annual Developer Survey**
  - **the largest** and **most comprehensive survey of coders** around the world (**nearly 90,000 developers**)
  - examines **how developers learn and level up**, which **tools** they're using, and **what they want**
- This presentation elaborates **both the current usage** and **future trends** of **IT technologies & databases**
- It contains findings and implications regarding **most popular programming languages and databases** in 2019 and 2018
- In addition, it contains findings about **age, geographic distribution and education of respondants**

METHODOLOGY



- **Collecting & exploring** survey data:
  - Web Scraping
  - APIs
  - Request library
- **Data Wrangling**
- **Exploratory data analysis**
  - Analyzing data distribution
  - Handling outliers
  - Correlations
- **Data Visualization**
  - Highlight distribution of data, relationships, the composition and comparison of data
- **Key findings**

RESULTS

https://github.com/Tasimirac/Coursera-Data_analyst/blob/main/Current%20Technology%20Usage.pdf

https://github.com/Tasimirac/Coursera-Data_analyst/blob/main/Future%20Technology%20Trend.pdf

https://github.com/Tasimirac/Coursera-Data_analyst/blob/main/Demographics.pdf

PROGRAMMING LANGUAGE TRENDS - FINDINGS & IMPLICATIONS

Findings

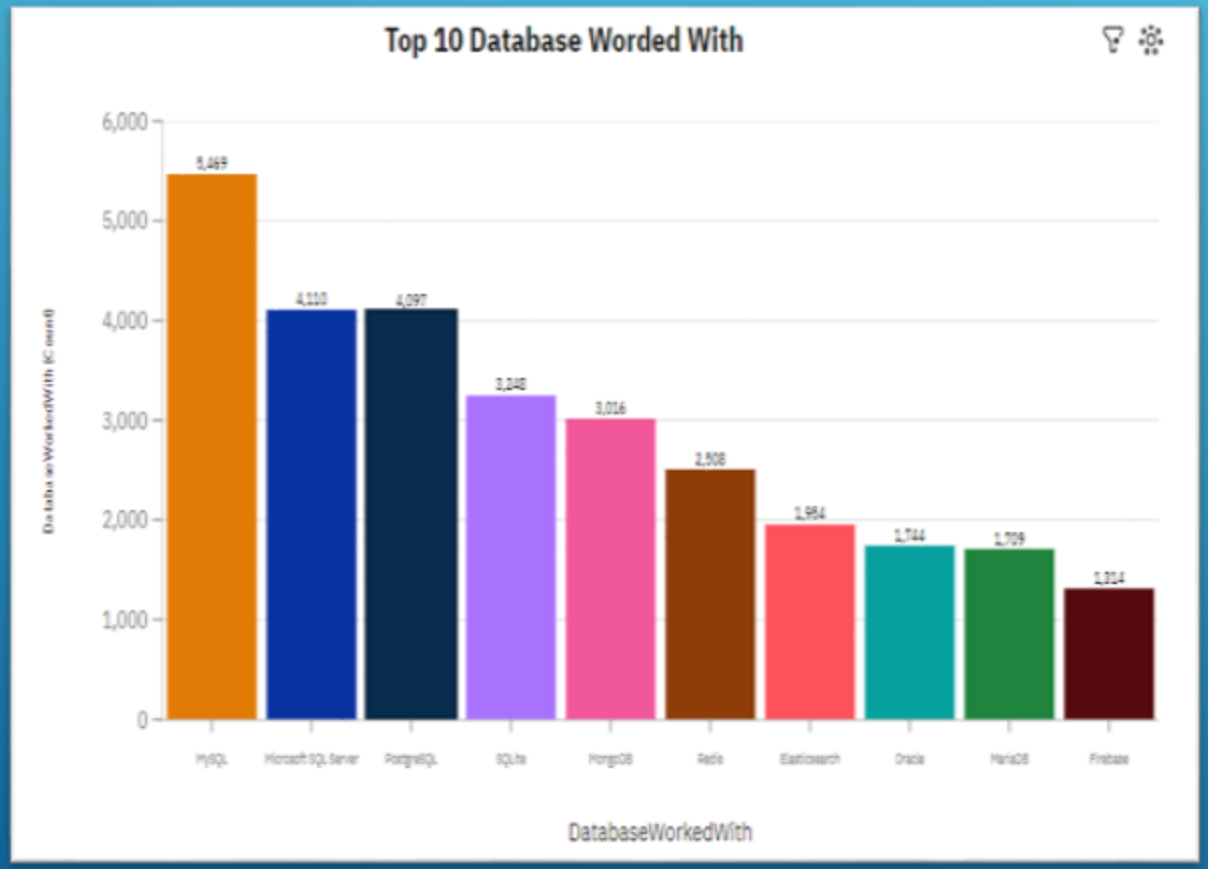
- JavaScript remained the most popular programming language
- Python continued its rise in popularity
- TypeScript saw significant growth in 2019
- SQL dropped down in popularity

Implications

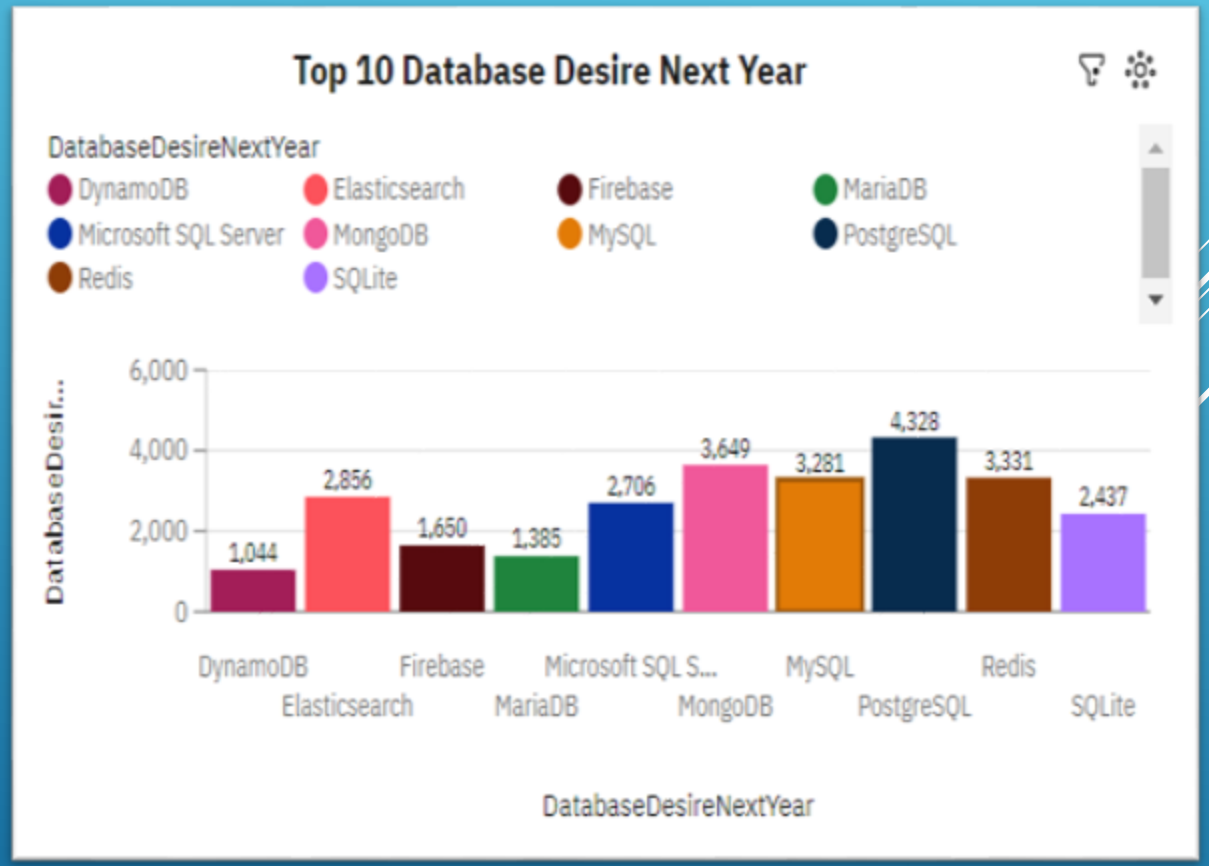
- Possible migration from JavaScript to TypeScript in future
- Further increase in popularity of Python and Bash/Shell/Power Shell
- Popularity of Java and HTML implies high level of interest of Web applications development
- Languages that are easy to learn (Pyhton) will become more and more popular

DATABASE TRENDS

Current Year



Next Year



DATABASE TRENDS - FINDINGS & IMPLICATIONS

Findings

- **PostgreSQL** became the most popular database in 2019
- **MongoDB** became more popular in 2019
- **Elasticsearch** saw increasing growth

Implications

- **MySQL** and **Microsoft SQL Server** are losing its market share
- **PostgreSQL** and **MongoDB** are suprassing the MySQL and Microsoft SQL Server
- Open-source databases (like PostgreSQL) are gaining popularity

DASHBOARD

https://github.com/Tasimirac/Coursera-Data_analyst/blob/main/Current%20Technology%20Usage.pdf

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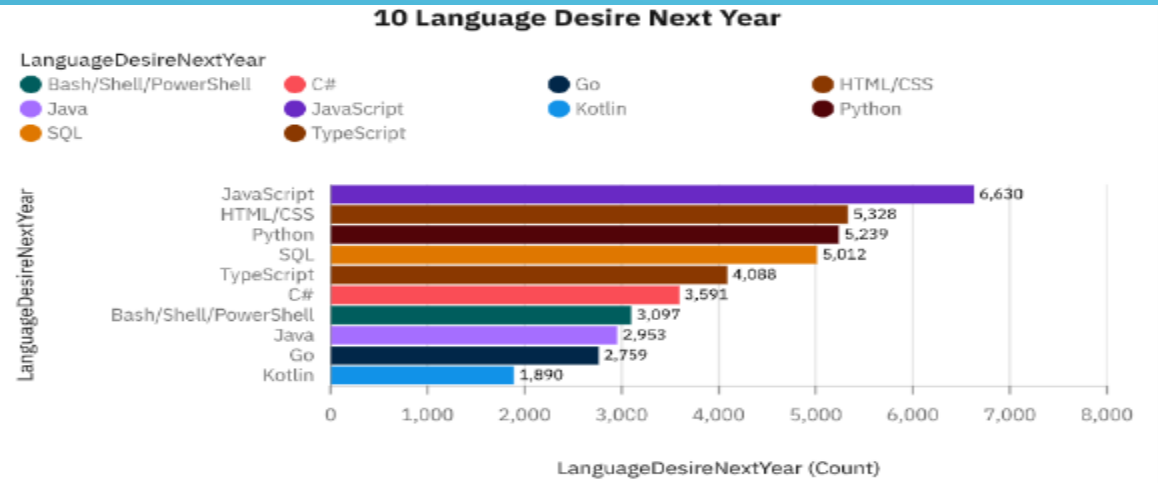
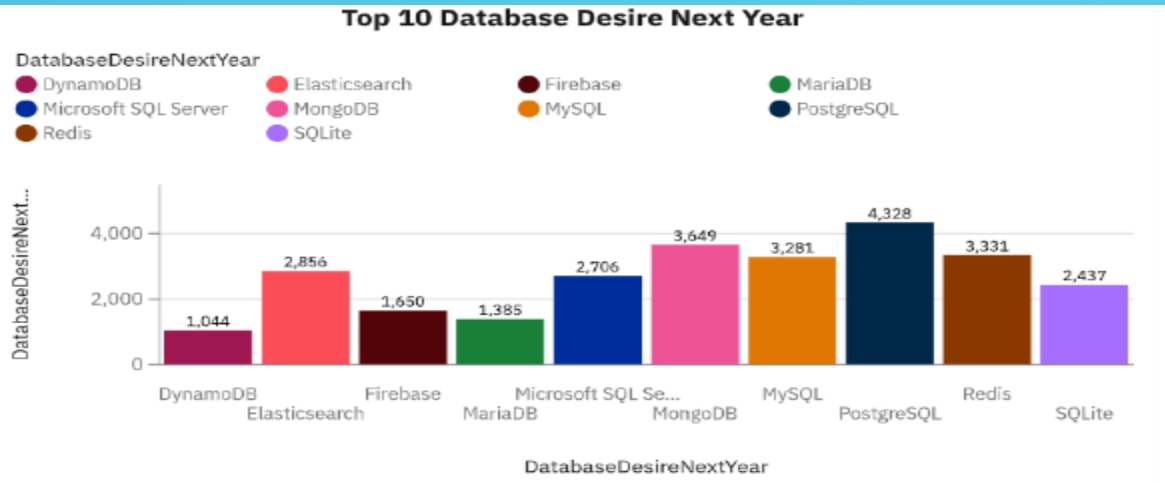
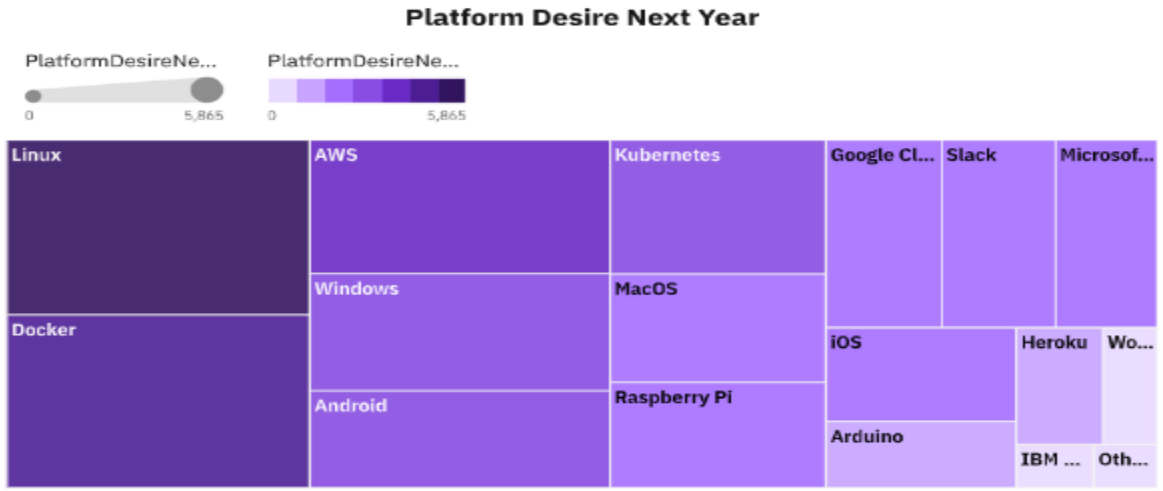
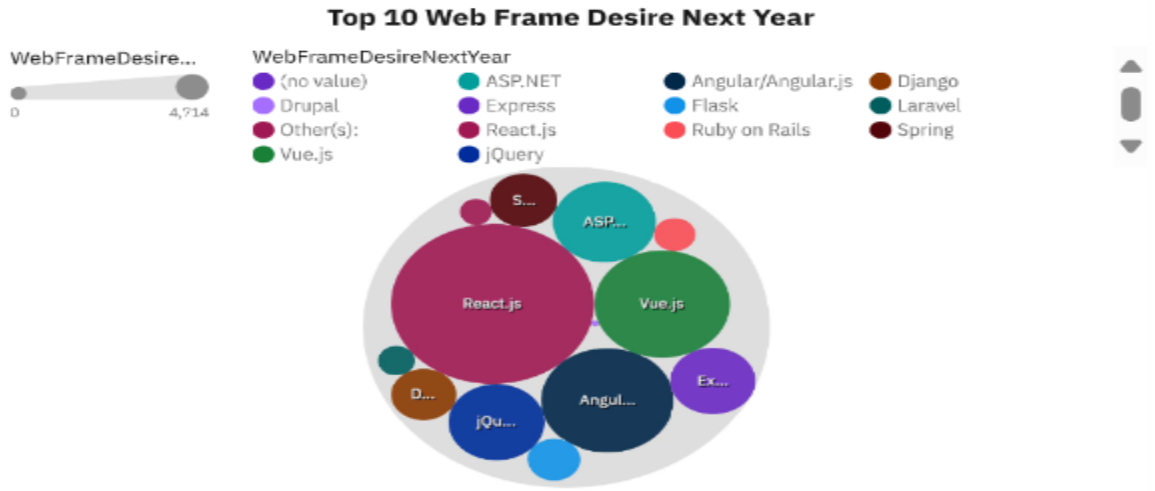
CURRENT TECHNOLOGY USAGE

FUTURE TECHNOLOGY USAGE



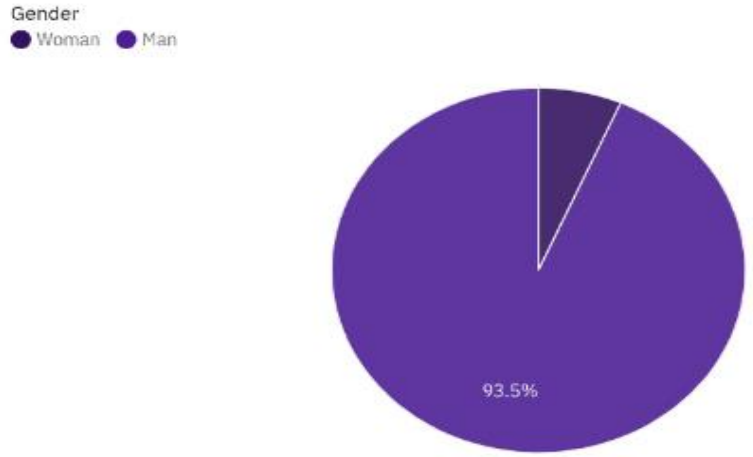






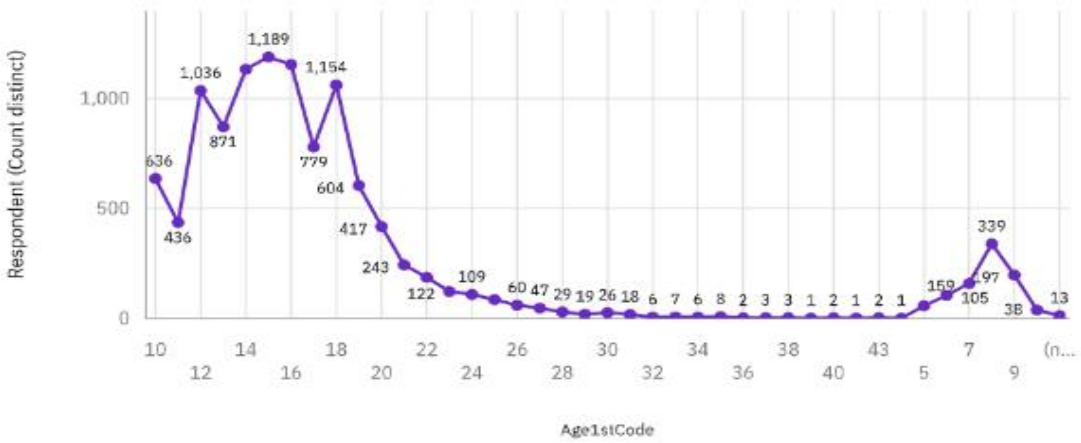
DEMOGRAPHICS

Respondent classified by Gender

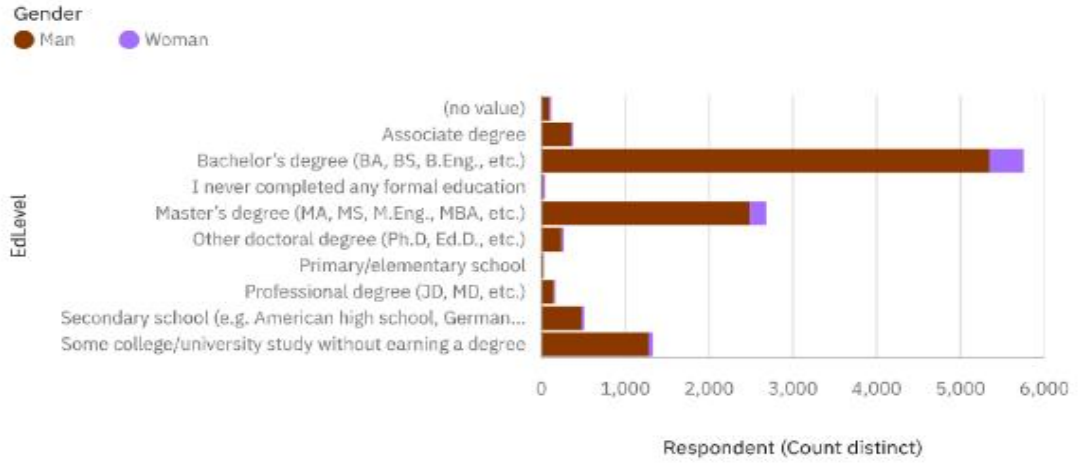


Respondent Count for Countries

Respondent Count by Age



Respondent Count by Gender, classified by Formal Education Level



DISCUSSION

OVERALL FINDINGS & IMPLICATIONS

Findings

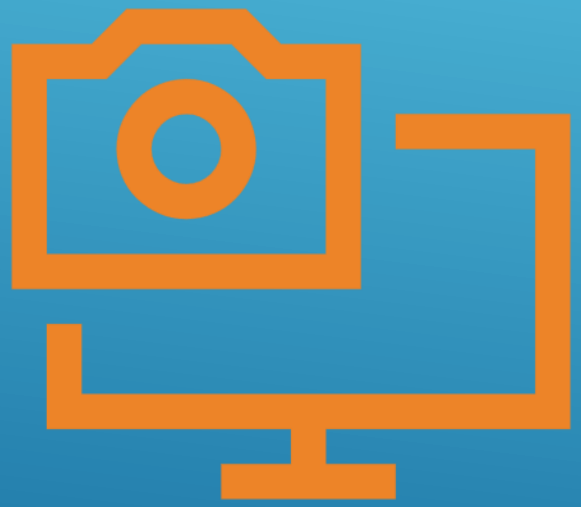
- **JavaScript** remained the most commonly used programming language
- The majority of developers were **male**
- DevOps specialists and site reliability engineers were **among the highest-paid roles**
- **Extreme gender disparity** between males and females
- **Disparity in salaries** among developed and undeveloped countries
- Most coders are below 20-ies

Implications

- Growing preference for languages that are easy to learn (Pyhton)
- Significant differences in salaries across regions highlight the need for a more global approach to compensation
- Efforts to support underrepresented groups (due to gender disparity) could lead to a more balanced and innovative workforce.
- Raising ethical issues implies improving global regulation

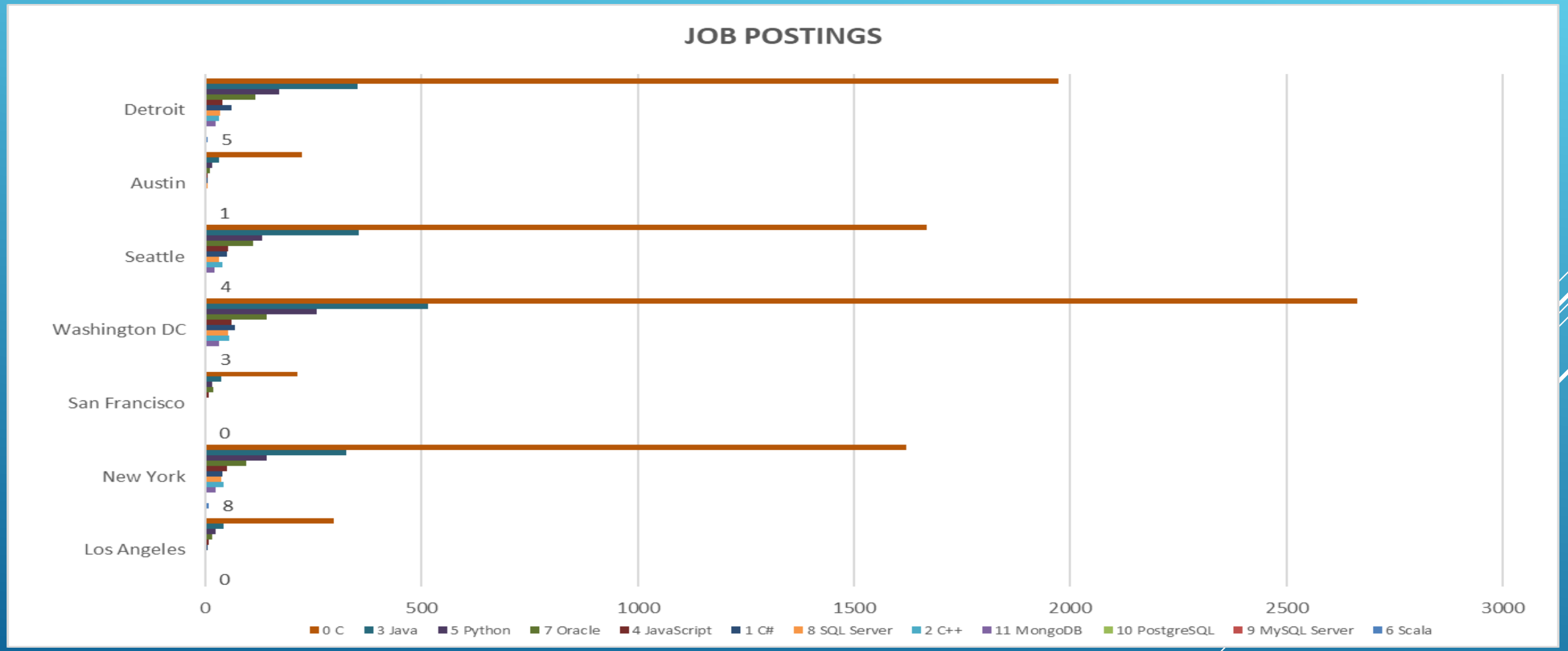
CONCLUSION

- JavaScript remained the most popular programming language
- Python is the fastest-growing major programming language
- The majority of developers were male (high disparity among poles)
- There is a high disparity in salaries among developed and undeveloped countries
- Large number of young coders

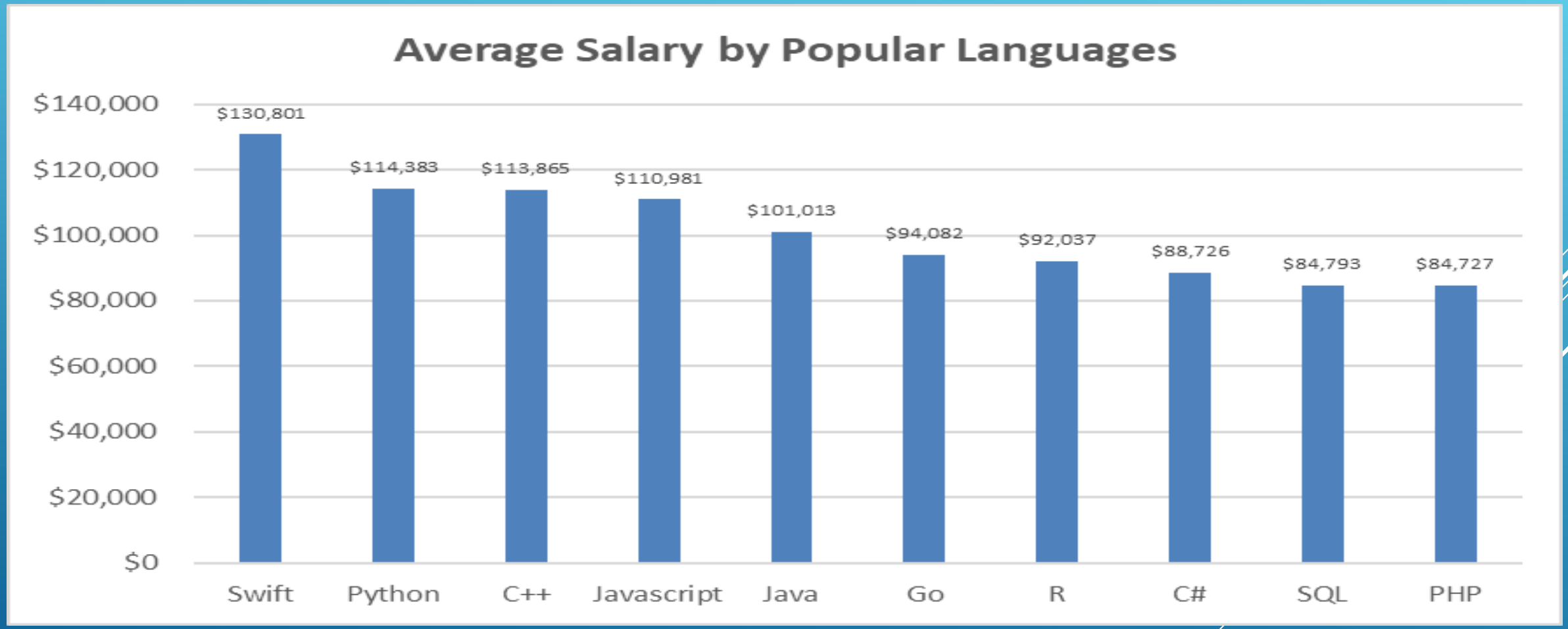


APPENDIX

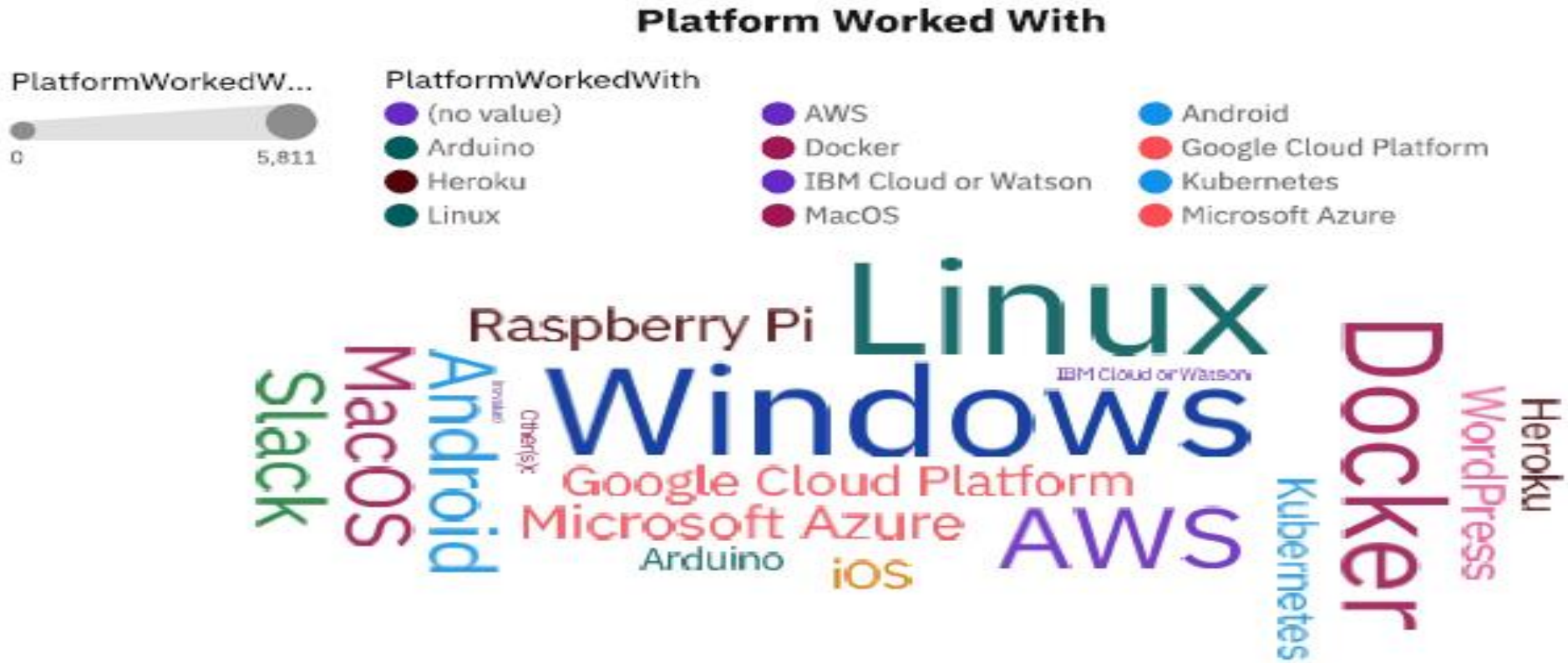
JOB POSTINGS



POPULAR LANGUAGES



MOST POPULAR PLATFORMS



ADDITIONAL FINDINGS

- Most Job postings hold Python, JavaScript and C# developers
- Top 3 Programming Languages with highest average (yearly) salaries are: Swift, Python and C++
- Most popular platforms remains Windows and Linux