



CAPSTONE PROJECT

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OUTLINE



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- Methodology
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 - Dashboard
- Discussion
 - Findings & Implications
- Conclusion
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EXECUTIVE SUMMARY



- This project describes the role and tasks of a Data Analyst in a global IT and business consulting services firm.
- The main objective is to collect and analyze data on the top programming skills that are most in demand for this year's report on emerging skills
- The data sources include job postings, training portals, and surveys
- The data analysis involves scraping web sites, accessing APIs, data wrangling, statistical techniques, and IBM Cognos Analytics

INTRODUCTION



- As a Data Analyst, I'm tasked with collecting data from various sources and identifying trends for this year's report on emerging skills
- The first task is to collect the top programming skills that are most in demand from various sources including:
 - Job postings
 - Training portals
 - Surveys
- Analyze the data and identify insights and trends that may include the following:
 - What are the top programming languages in demand?
 - What are the top database skills in demand?
 - What are the popular IDEs?

METHODOLOGY



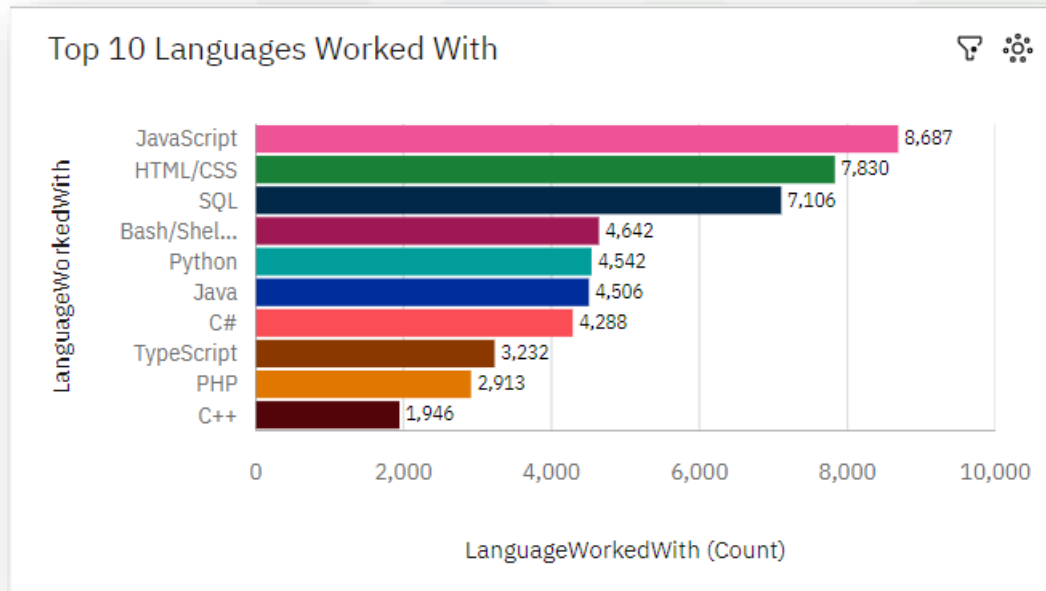
- Data Collection
- Data Wrangling
 - Handling Missing Values
 - Handling Duplicates
- Exploratory Data Analysis
 - Distribution
 - Outliers
 - Correlation
- Data Visualization
- Dashboard Creation

RESULTS

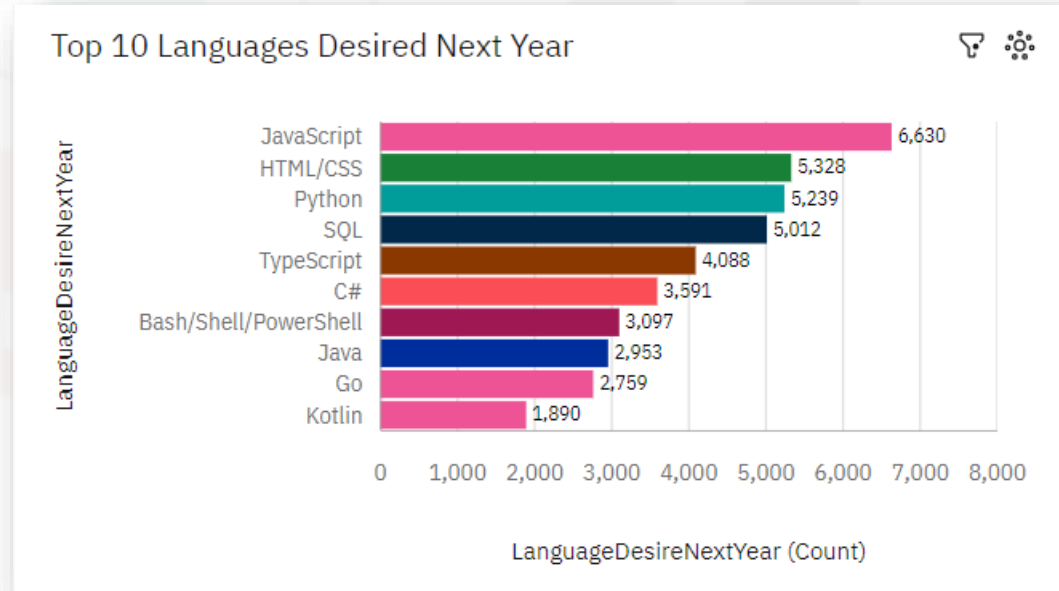
VISUALIZATION - CHARTS

PROGRAMMING LANGUAGE TRENDS

Current Year



Next Year



PROGRAMMING LANGUAGE TRENDS - FINDINGS & IMPLICATIONS

Findings

- JavaScript and HTML/CSS are the top programming languages
- There has been a decline in Bash/Shell/Powershell
- Python has overtaken SQL in terms of popularity

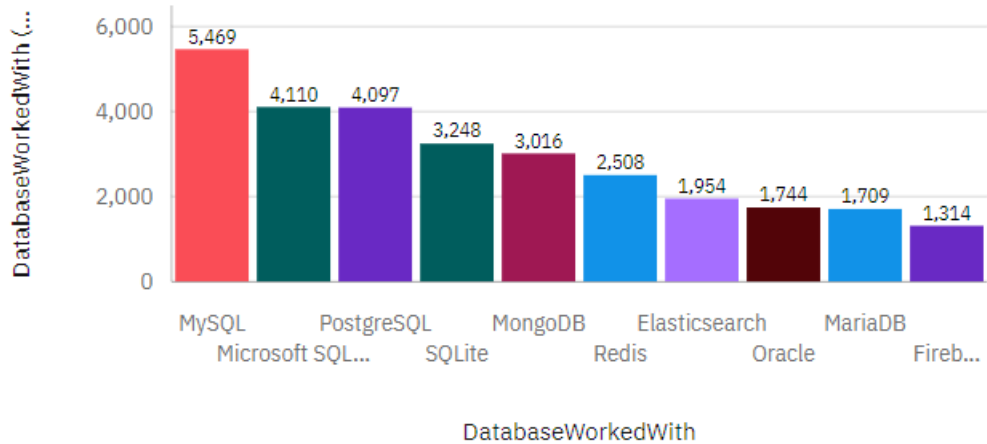
Implications

- The desire for programming languages is still substantial
- The popularity of Python is increasing
- People seem to be more open towards TypeScript

DATABASE TRENDS

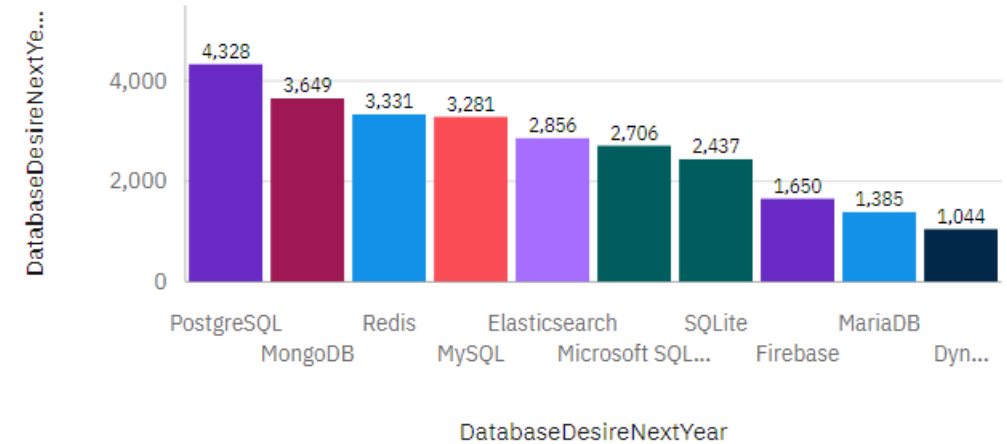
Current Year

Top 10 Databases Worked With



Next Year

Top 10 Databases Desired Next Year



DATABASE TRENDS - FINDINGS & IMPLICATIONS

Findings

- MySQL is the most popular database
- PostgreSQL has topped the charts for next year
- Microsoft SQL Server has taken a decline

Implications

- The need for databases is on the rise
- The popularity of PostgreSQL and MongoDB is increasing
- There are huge differences between the popularity for current year and next year

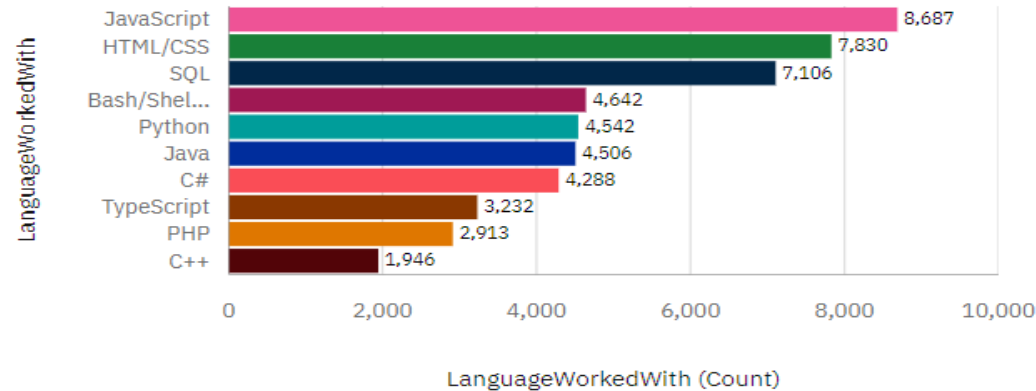
DASHBOARD



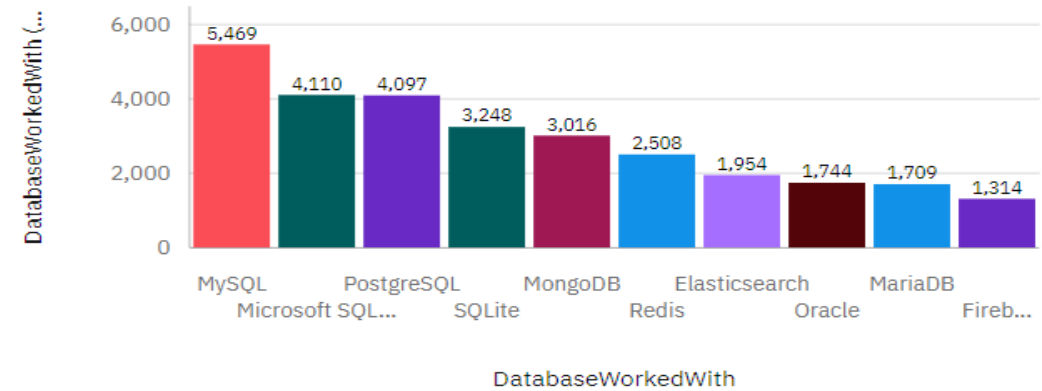
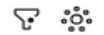
<https://github.com/PratikRules/courserarepo/blob/8c123f020a910900fa62df5f3a85977c9cbe8bdc/Dashboard.pdf>

CURRENT TECHNOLOGY USAGE

Top 10 Languages Worked With



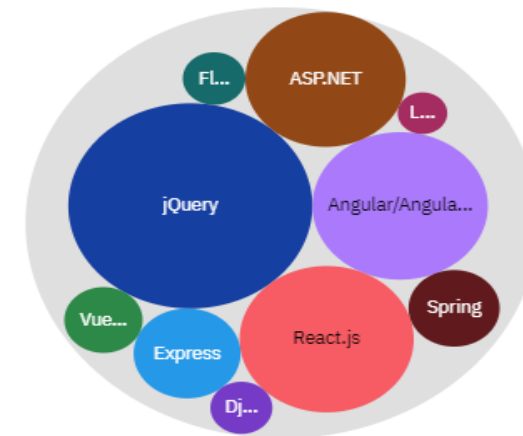
Top 10 Databases Worked With



Platforms Worked With

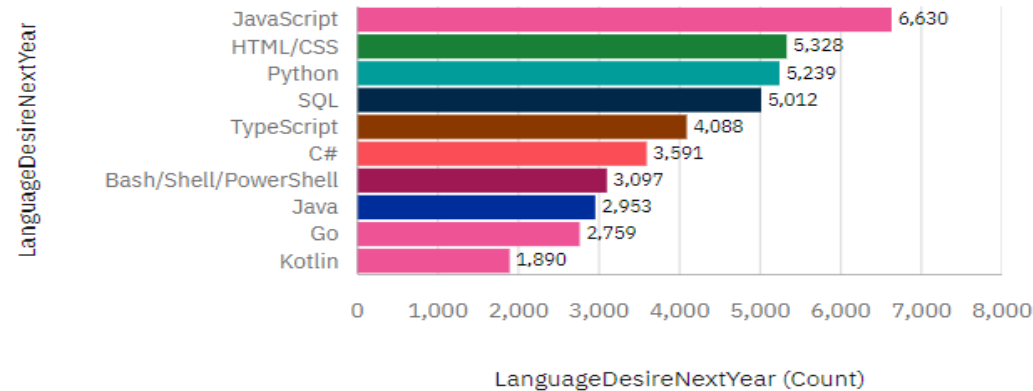


Top 10 WebFrames Worked With

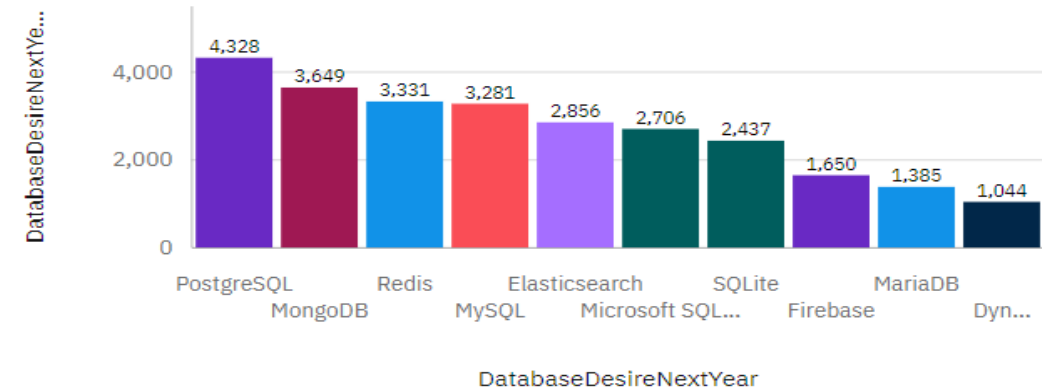
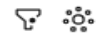


FUTURE TECHNOLOGY TREND

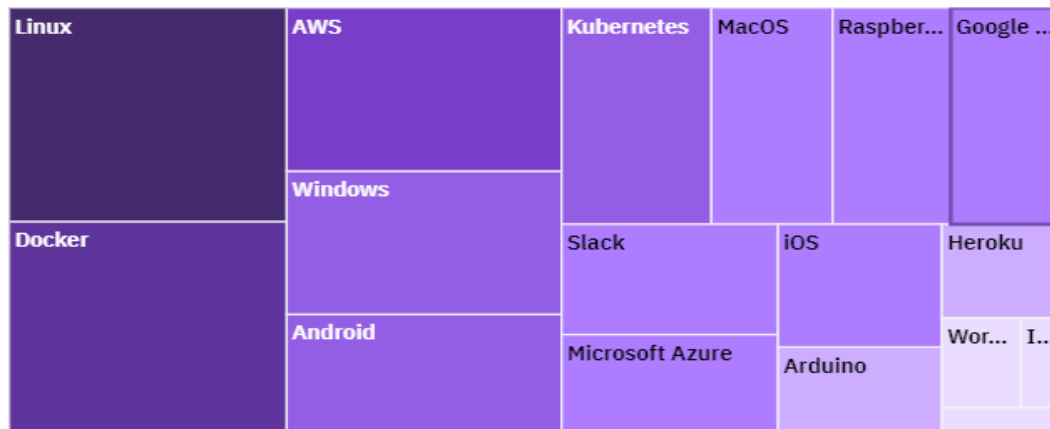
Top 10 Languages Desired Next Year



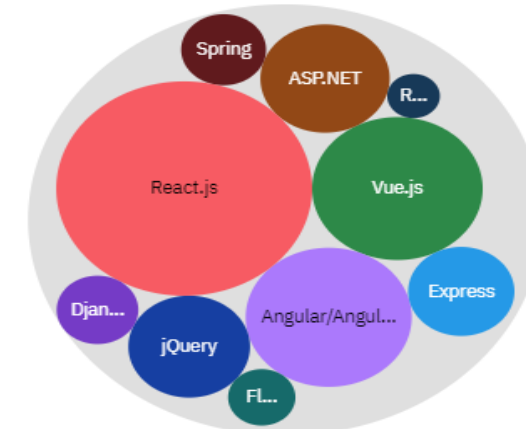
Top 10 Databases Desired Next Year



Platforms Desired Next Year

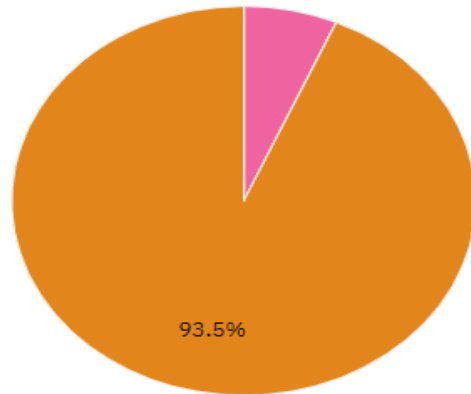


Top 10 WebFrames Desired Next Year



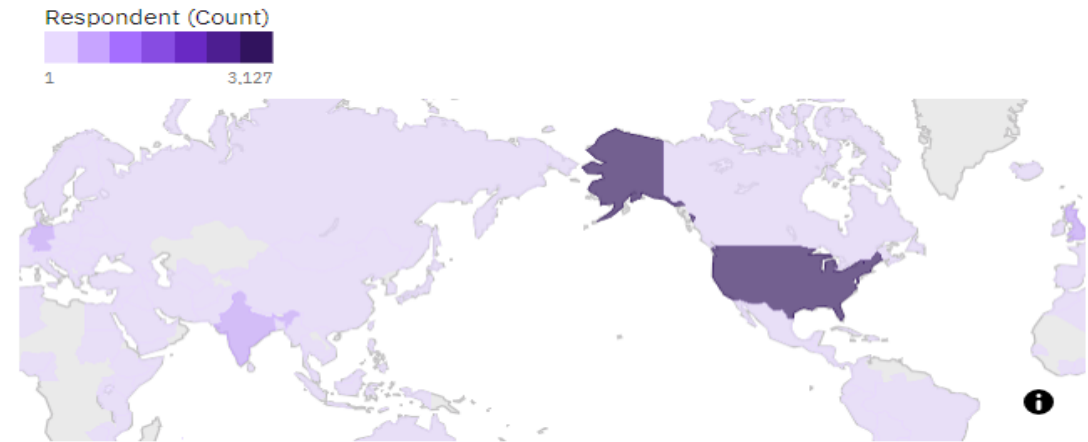
DEMOGRAPHICS

Respondent classified by Gender

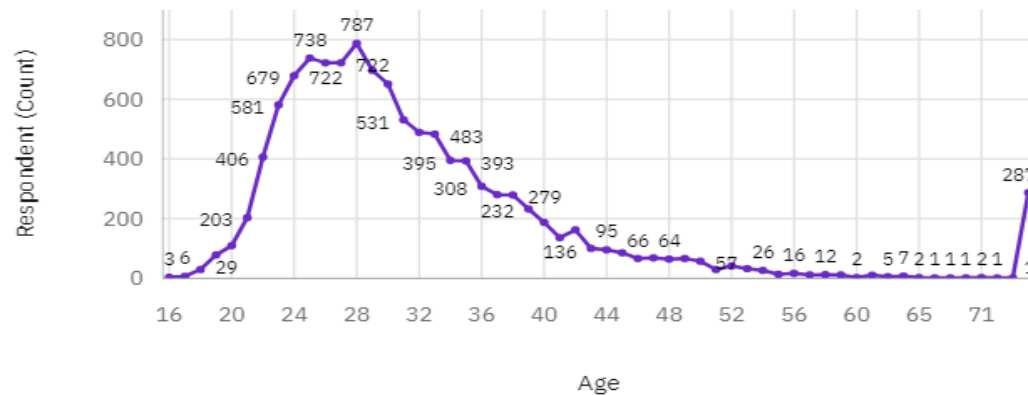


Gender
● Woman
● Man

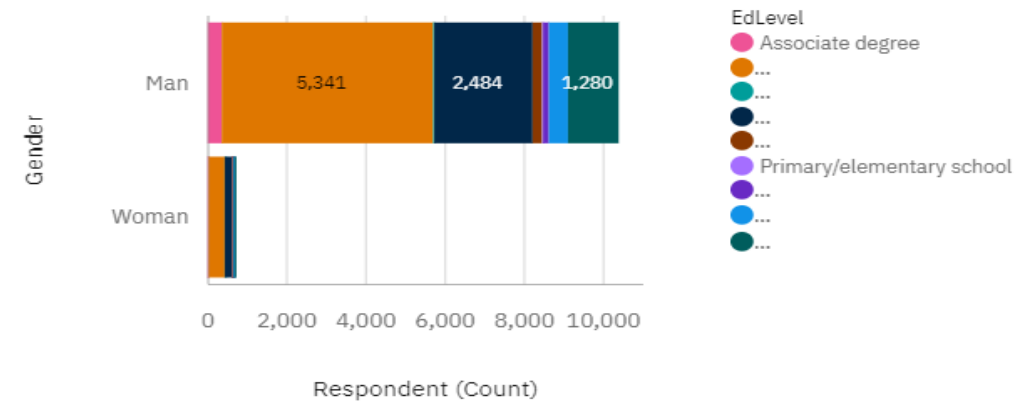
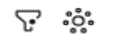
Respondent Count for Countries



Respondent Count by Age



Respondent Count by Gender and Formal Education Level



DISCUSSION



- What are the top programming languages in demand?
- What are the top database skills in demand?
- What are the popular IDEs?

OVERALL FINDINGS & IMPLICATIONS

Findings

- Linux is the most popular platform people use
- United States has the highest number of respondents
- The popularity of React.js is increasing

Implications

- Developers want to stick to Linux as their main platform
- United States has become the hub for all technologies
- The trend for JavaScript is on the rise

CONCLUSION



- The top programming languages are JavaScript, followed by HTML/CSS
- The in-demand database is PostgreSQL
- Linux and Windows are at neck-to-neck as the most used platform
- Web Frames like React.js are on the rise

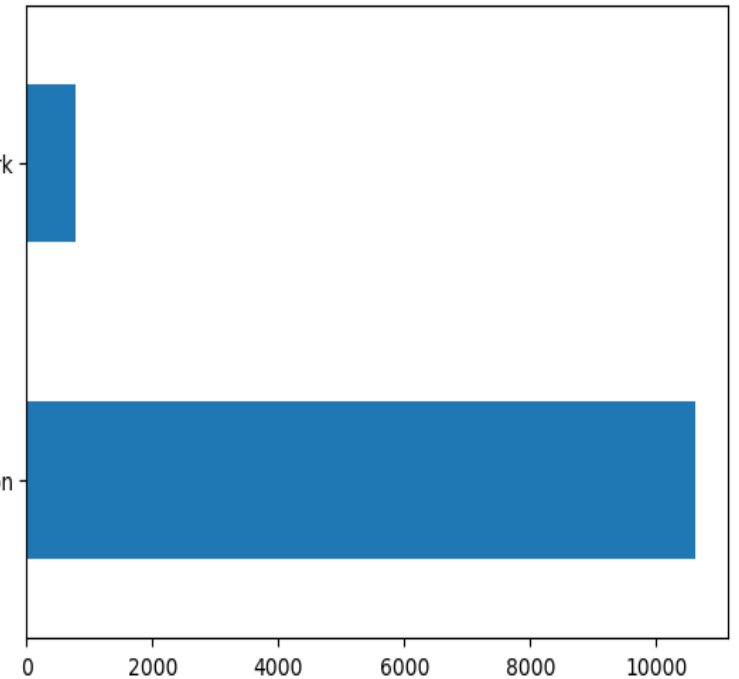
APPENDIX



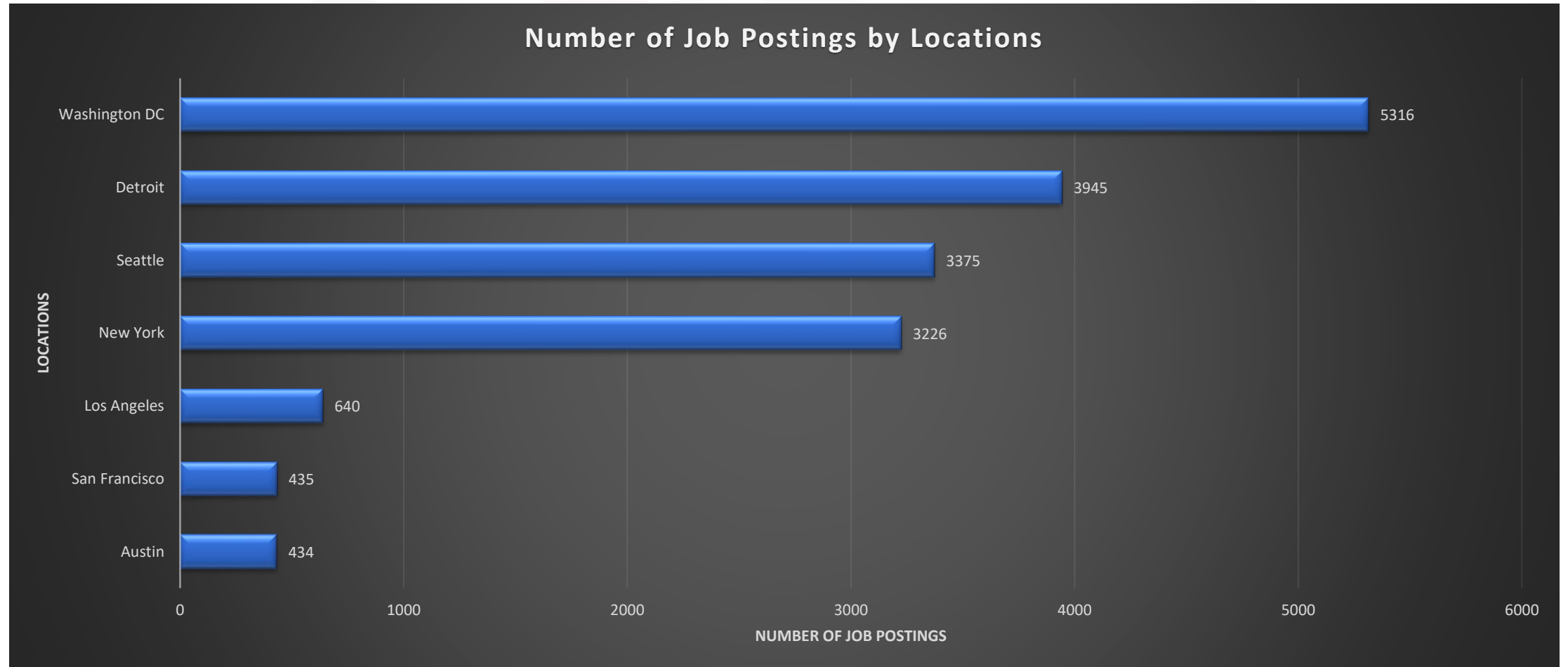
I am not primarily a developer, but I write code sometimes as part of my work

I am a developer by profession

Main Branch



JOB POSTINGS



POPULAR LANGUAGES

