Stack Overflow Developer Survey

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OUTLINE

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

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EXECUTIVE SUMMARY

- Introduction

- Methodology

- Findings
  - Trends
  - Dashboard
  - Overall Findings & Implications

- Conclusion

INTRODUCTION

- Stack Overflow Developer Survey

- 50,000+ responses across many demographics, backgrounds, experience levels, etc.

- Comprehensive survey provides for an in depth and accurate look into current and future trends
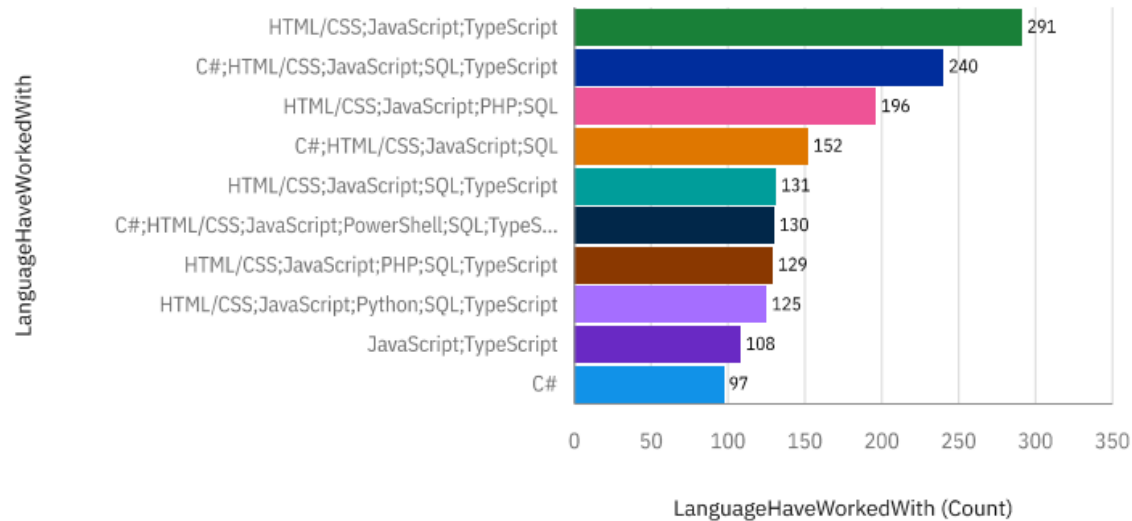
METHODOLOGY

- Data Collection
  - APIs
  - Webscraping
- Data Wrangling
  - Find & Remove Duplicates
  - Normalize Data
- Exploratory Data Analysis
  - Analyze Distribution
  - Find Correlation
- Data Visualization
- Building A Dashboard
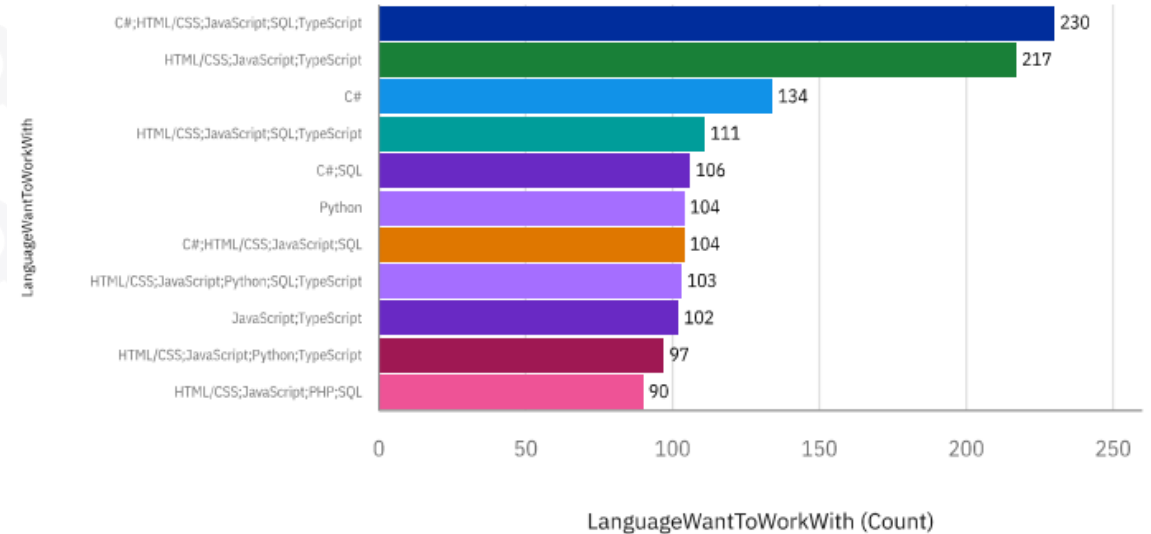
PROGRAMMING LANGUAGE TRENDS

Current Year

Next Year

Top 10 Languages Worked With

Language	Count
HTML/CSS;JavaScript;TypeScript	291
C#;HTML/CSS;JavaScript;SQL;TypeScript	240
HTML/CSS;JavaScript;PHP;SQL	196
C#;HTML/CSS;JavaScript;SQL	152
HTML/CSS;JavaScript;SQL;TypeScript	131
C#;HTML/CSS;JavaScript;PowerShell;SQL;TypeS...	130
HTML/CSS;JavaScript;PHP;SQL;TypeScript	129
HTML/CSS;JavaScript;Python;SQL;TypeScript	125
JavaScript;TypeScript	108
C#	97

Top 10 Desired Languages

Language	Count
C#;HTML/CSS;JavaScript;SQL;TypeScript	230
HTML/CSS;JavaScript;TypeScript	217
C#	134
HTML/CSS;JavaScript;SQL;TypeScript	111
C#;SQL	106
Python	104
C#;HTML/CSS;JavaScript;SQL	104
HTML/CSS;JavaScript;Python;SQL;TypeScript	103
JavaScript;TypeScript	102
HTML/CSS;JavaScript;Python;TypeScript	97
HTML/CSS;JavaScript;PHP;SQL	90

PROGRAMMING LANGUAGE TRENDS - FINDINGS & IMPLICATIONS

Findings

- HTML/CSS, JavaScript & TypeScript are both widely used in the present yet heavily sought after for future use
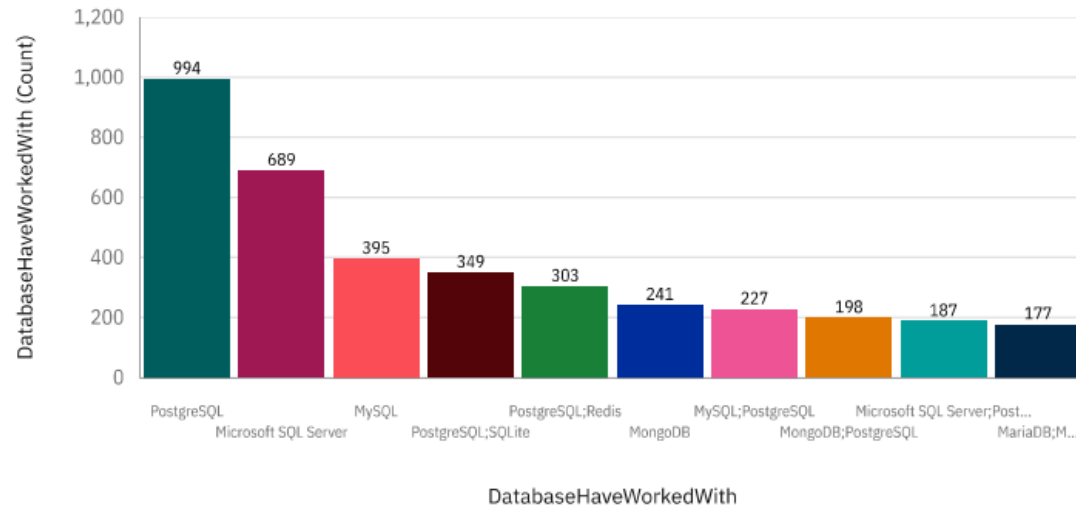
- C# & Python is a desired language to work with

Implications

- HTML/CSS, JavaScript & TypeScript business investment should continue into the future to attract top talent
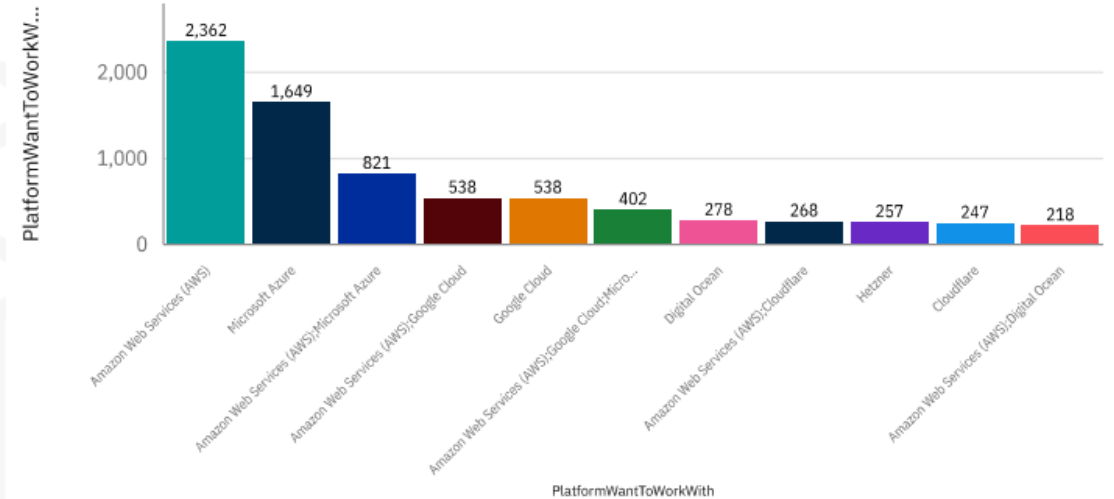
- Increase C# & Python investment and training

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DATABASE TRENDS

Current Year

Next Year

Top 10 Databases Worked With

DATABASE TRENDS - FINDINGS & IMPLICATIONS

Findings

- AWS is very heavily sought after by developers

- PostgreSQL is well known yet not typically desired

- Microsoft Azure popularity growing quickly

Implications

- Increase investment and training in AWS

- Likely due to lack of user friendliness and/or outdated platform
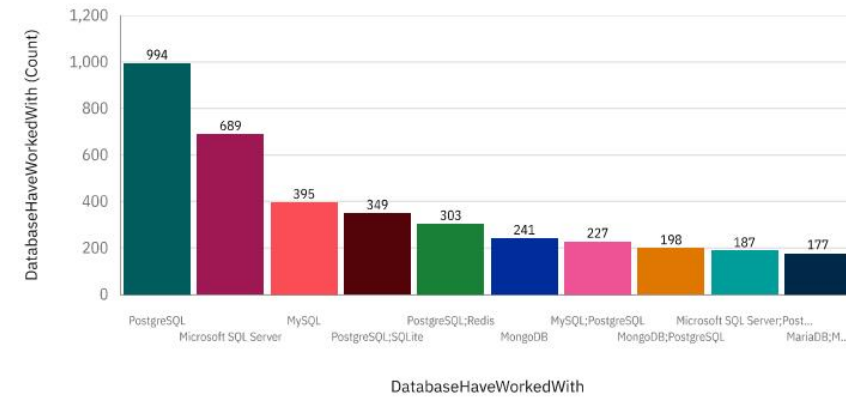
- Cloud computing is growing quickly

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DASHBOARD

https://github.com/JBGopher25/IBM-Data-Analyst-Capstone
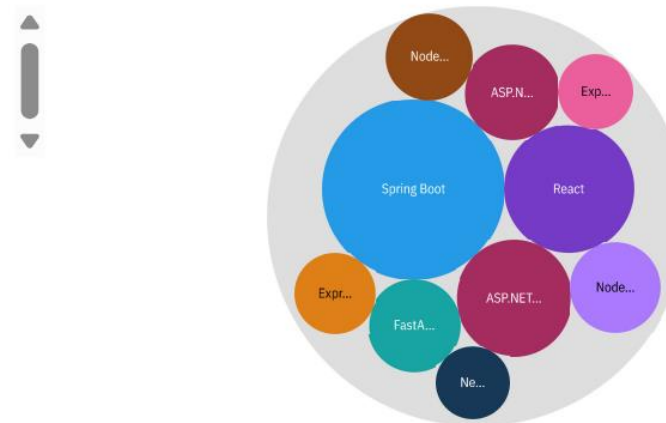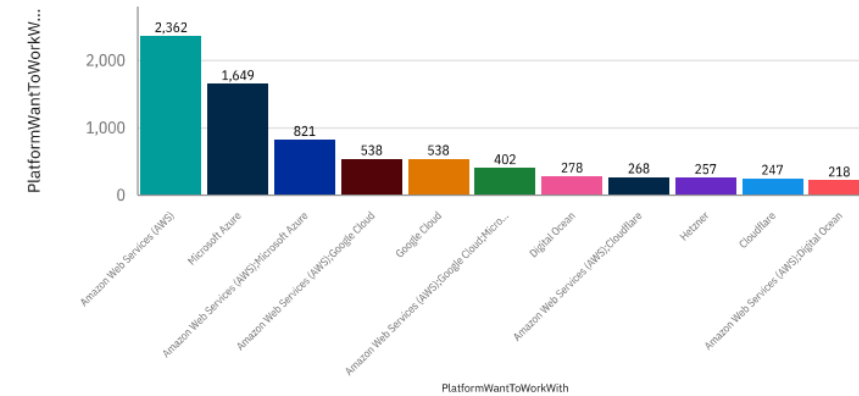
DASHBOARD TAB 1

DASHBOARD TAB 2
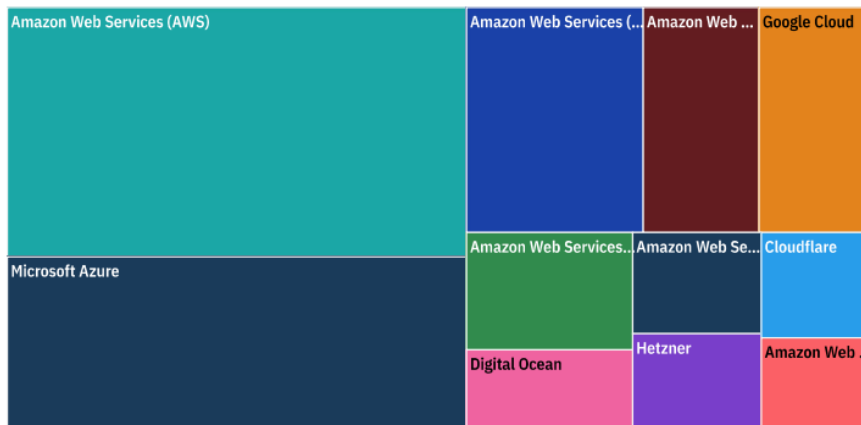
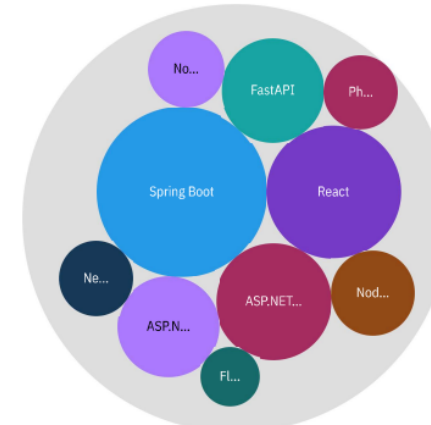## Future Technology Trend

Top 10 Desired Languages
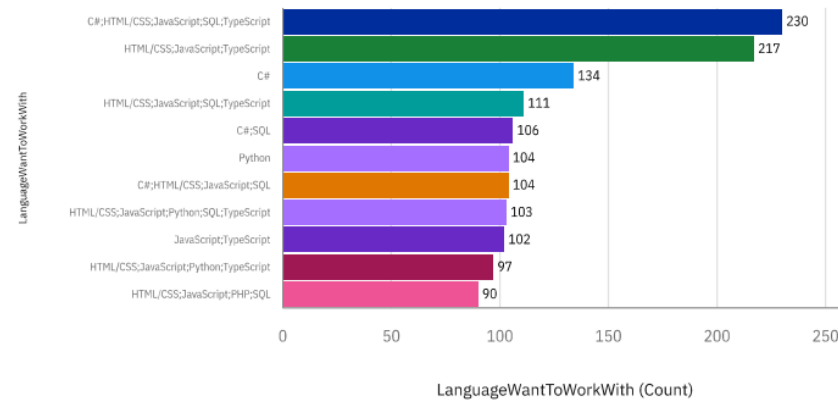
Top 10 Desired Platforms

Top 10 Desired Platforms

Top 10 Desired Webframes

DASHBOARD TAB 3
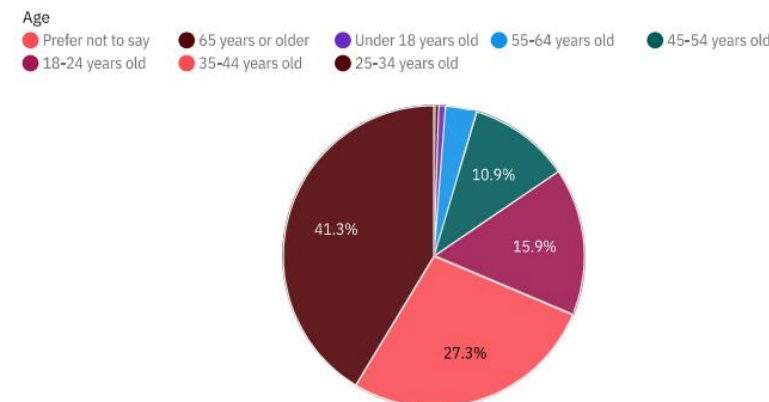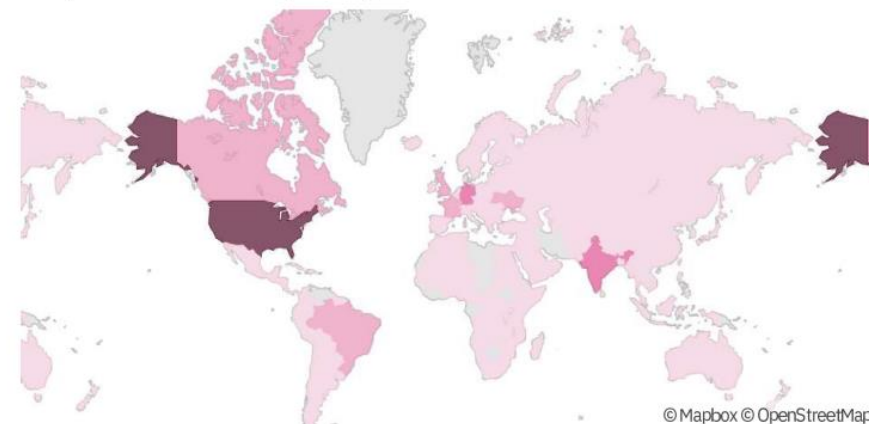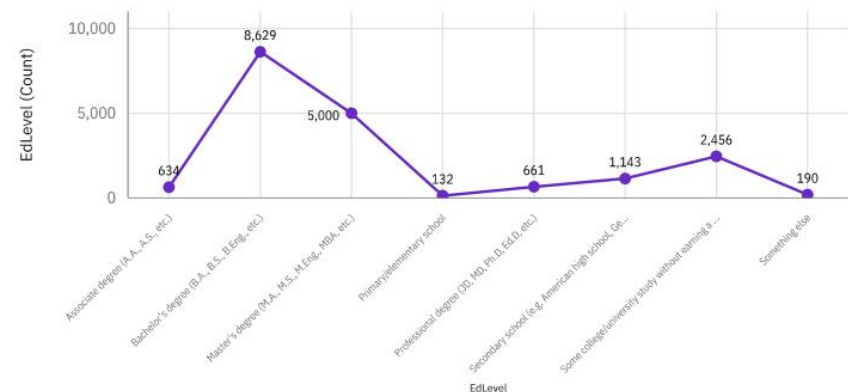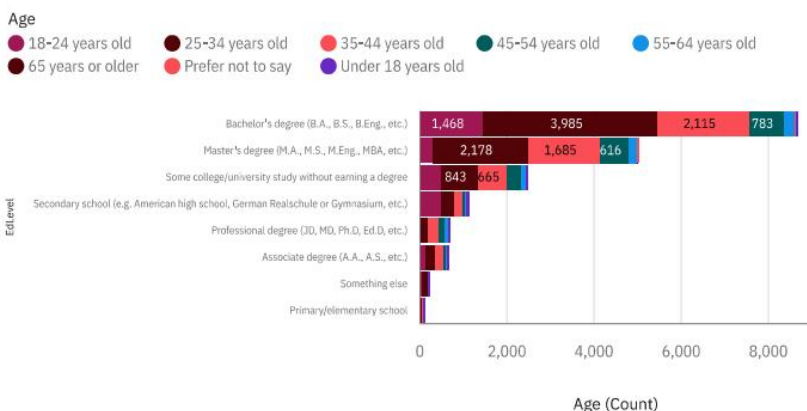
DISCUSSION

OVERALL FINDINGS & IMPLICATIONS

Findings

- Developers tend to enter workforce with Bachelor's Degree

- Majority of developers located in US

- Most platforms that are understood and widely worked with, are also heavily desired

Implications

- Requiring higher education on job postings could be greatly hurting ability to find talent

- Consolidate developer operations to US to reduce costs without drastically hurting talent pool

- Continue to do more of the same with platform investment
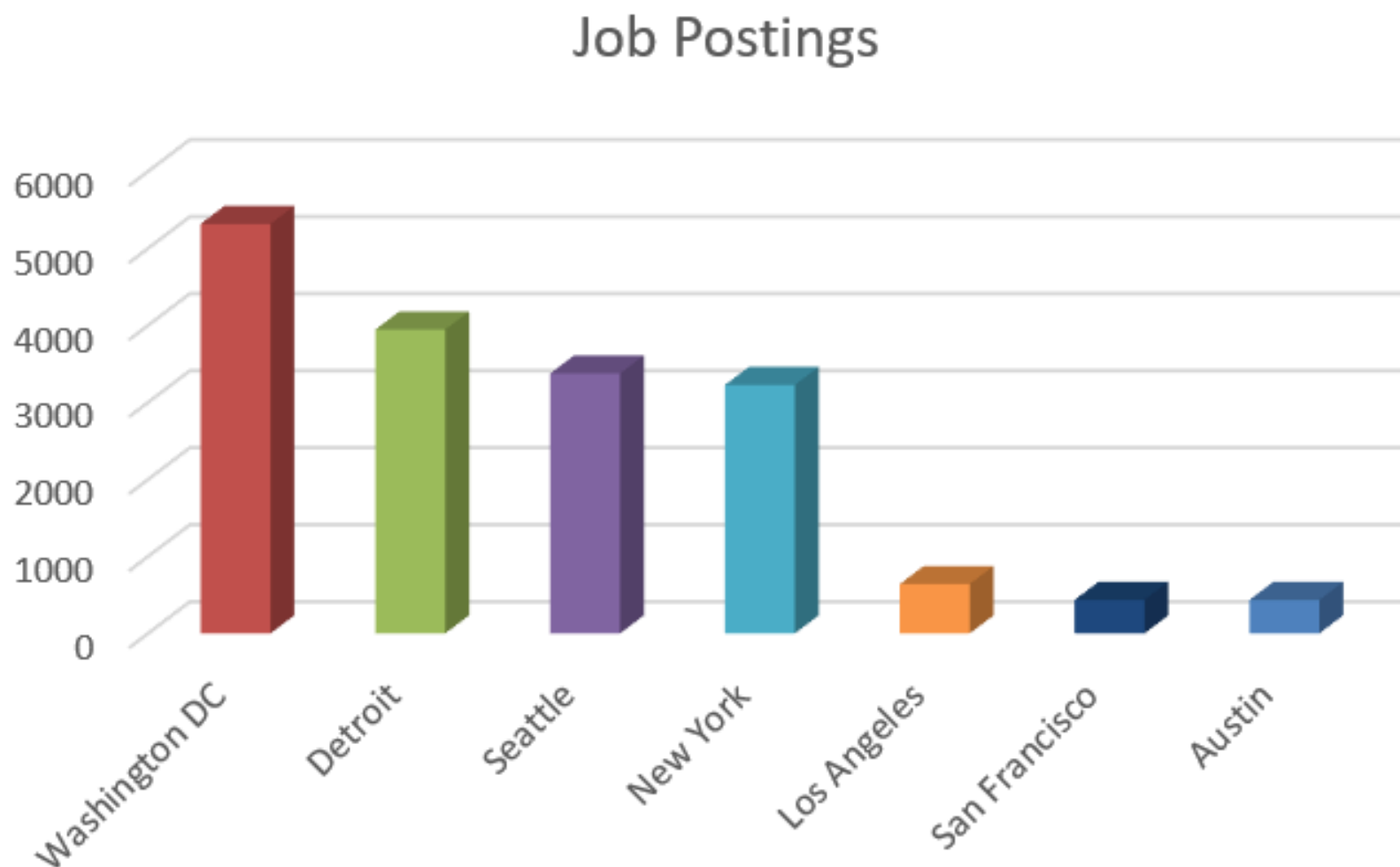
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CONCLUSION

- Developers mostly fall within the Gen Z and Millennial generations

- Developers understand a wide variety of platforms, databases, languages, etc.

- Developer talent pool mostly contained to develop countries, especially USA

- Post-Grad endeavors not common amongst developers

JOB POSTINGS

Job Postings

A 3D bar chart showing job postings by city:
- Washington DC: ~5400
- Detroit: ~4000
- Seattle: ~3500
- New York: ~3300
- Los Angeles: ~700
- San Francisco: ~500
- Austin: ~500

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POPULAR LANGUAGES

Average Annual Salary