



# Programing Skill Market Analysis

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# OUTLINE

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

# EXECUTIVE SUMMARY

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- Collecting programming techniques, personal information from various programmers
- Wrangling and explore data
  - Deal with missing, duplicated, outlier data, and normalize data
  - Find the relation between different features
- Analyzing data and identify insights and trends
  - The top 10 languages
  - The top 10 database
  - The popular programming tools
- Building a dashboard based on the analysis by cognos analysis

# INTRODUCTION

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- To keep pace of the development of techniques is significant for IT careers
- Focus problems
  - What are the popular programming tools in the present
  - What are the popular programming tools in the future

# METHODOLOGY

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- Data collecting
- Data wrang
- Exploratory data analysis
- Data visualization
- Building a dashboard

# RESULTS

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Current techniques

Future techniques

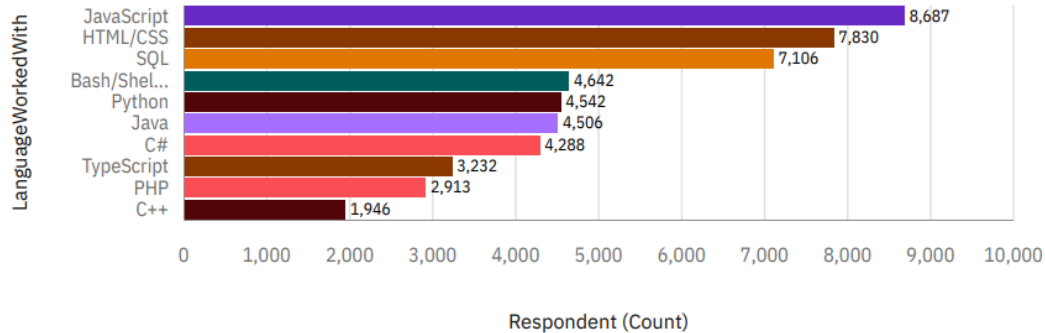
# PROGRAMMING LANGUAGE TRENDS

## Current Year

### Current Technology Usage

#### Top 10 Language Worked With

LanguageWorkedWith

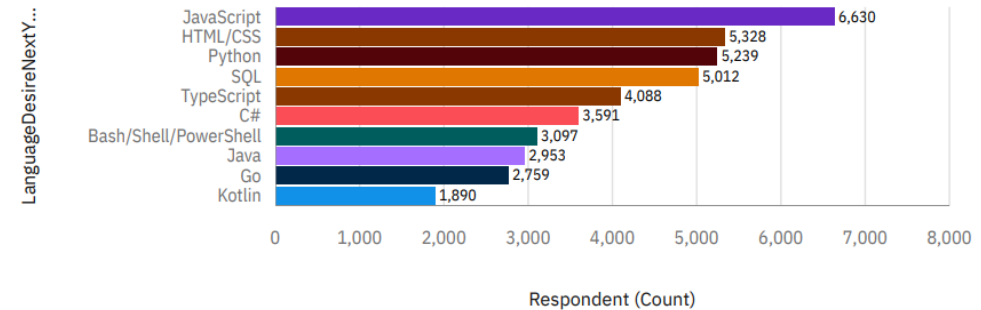
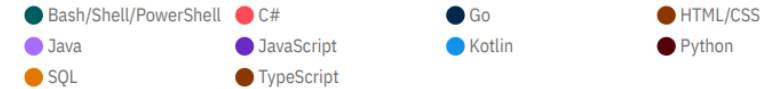


## Next Year

### Technology Trend

#### Top 10 LanguageDesireNextYear

LanguageDesireNextYear



# PROGRAMMING LANGUAGE TRENDS - FINDINGS & IMPLICATIONS

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## Findings

- JavaScript is the most highest number of people working with, following by HTML/CSS for both
- The third is replaced by python
- Total number of people who are working with top 10 languages decreases in the next year

## Implications

- JavaScript and HTML/CSS keep the trend
- People are more interested in python
- People are more interested for other languages

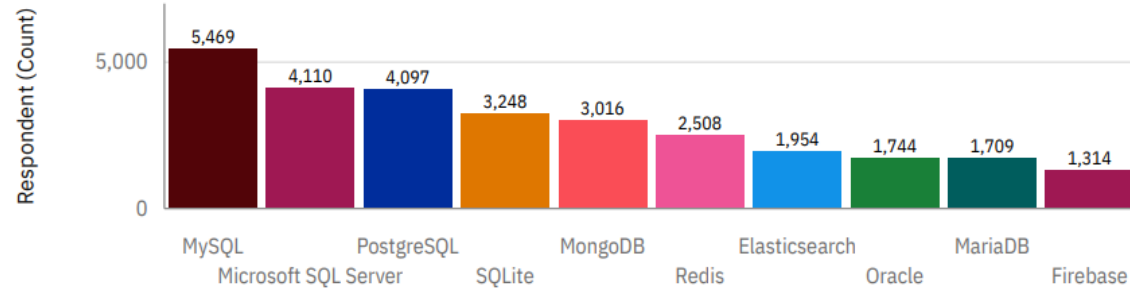
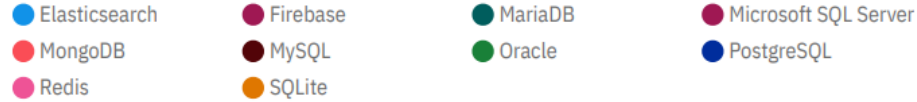


# DATABASE TRENDS

## Current Year

### Top 10 Database

DatabaseWorkedWith

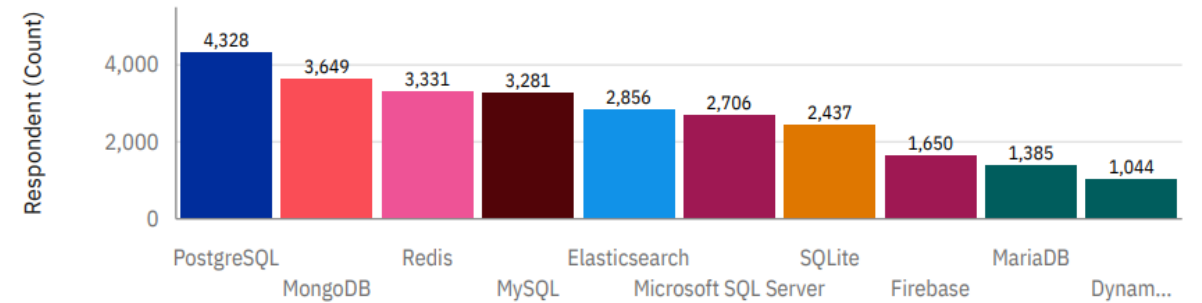
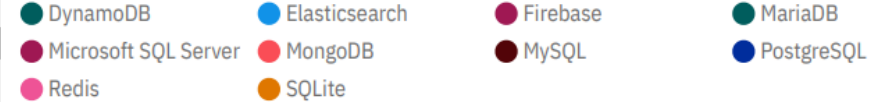


DatabaseWorkedWith

## Next Year

### Top 10 DatabaseDesireNextYear

DatabaseDesireNextYear



DatabaseDesireNextYear

# DATABASE TRENDS - FINDINGS & IMPLICATIONS

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## Findings

- PostgreSQL, MongoDB, Redis, ElasticSearch and Firebase will get higher ranking
- Oracle will be out, and replaced by DynamoDB

## Implications

- People are more interested in PostgreSQL, MongoDB, Redis, ElasticSearch and Firebase
- People change the attention from Oracle to DynamoDB

# DASHBOARD

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The link of Cognos Dashboard  
[Click here](#)

# DASHBOARD TAB 1

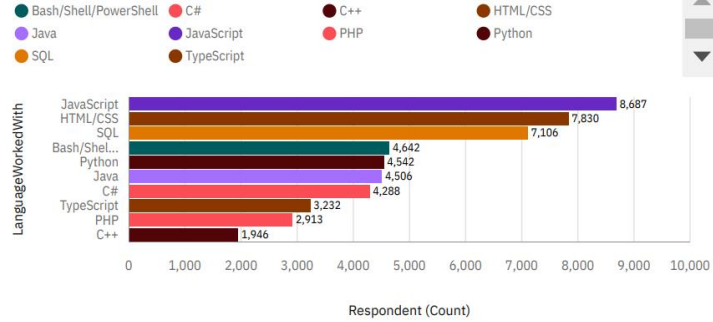
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New dashboard

### Current Technology Usage

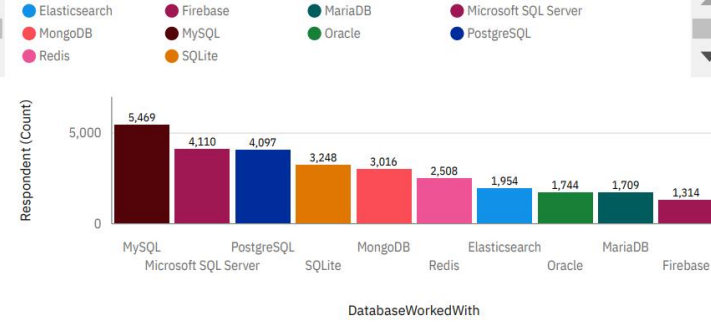
### Top 10 Language Worked With

LanguageWorkedWith



## Top 10 Database

DatabaseWorkedWith

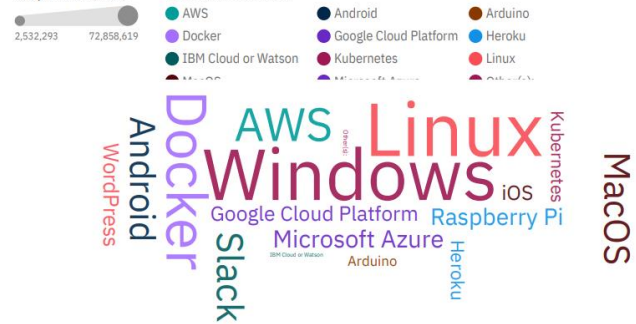


### Word Cloud of Popular Platform

Respondent (Sum)

Category	Value
United States	2,532,293
World	72,858,619

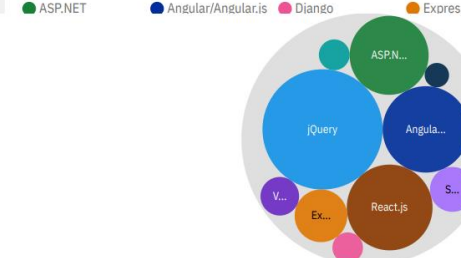
PlatformWorkedWith



## Top 10 Web Frames

Respondent (Count)

WebFrameWorkedWith



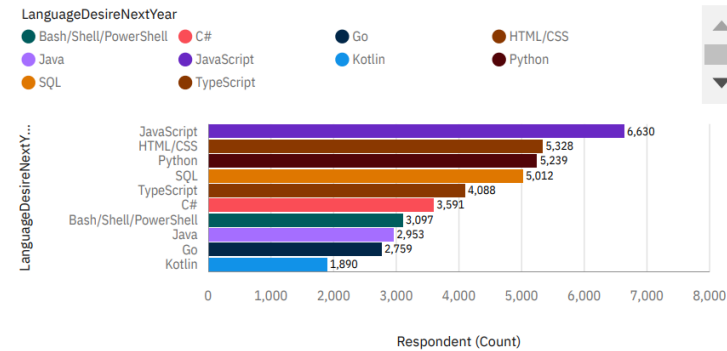
# DASHBOARD TAB 2

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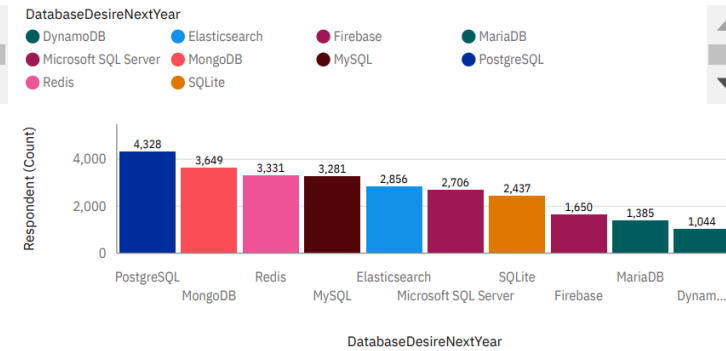
New dashboard

## Technology Trend

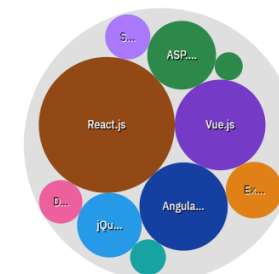
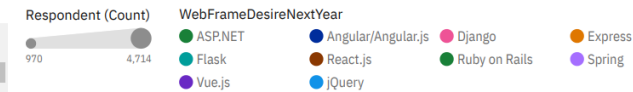
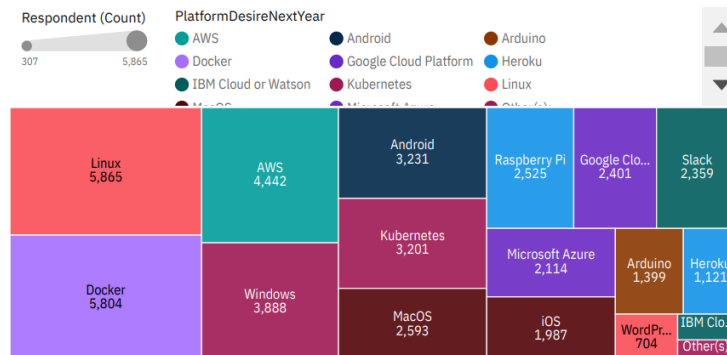
### Top 10 LanguageDesireNextYear



### Top 10 DatabaseDesireNextYear



### Tree map of PlatformDesireNextYear



# DASHBOARD TAB 3

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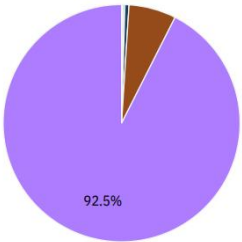
New dashboard

## Demographics

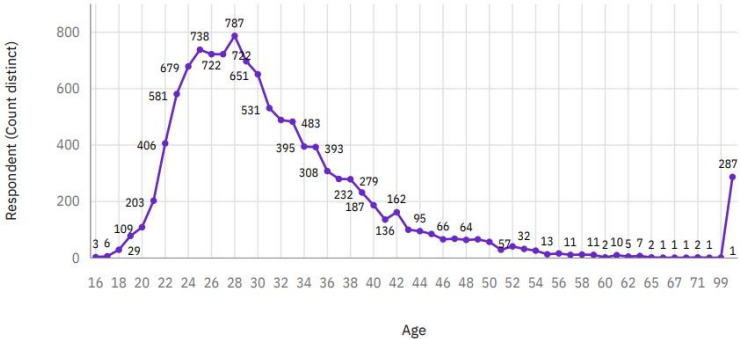
### Genders

Gender

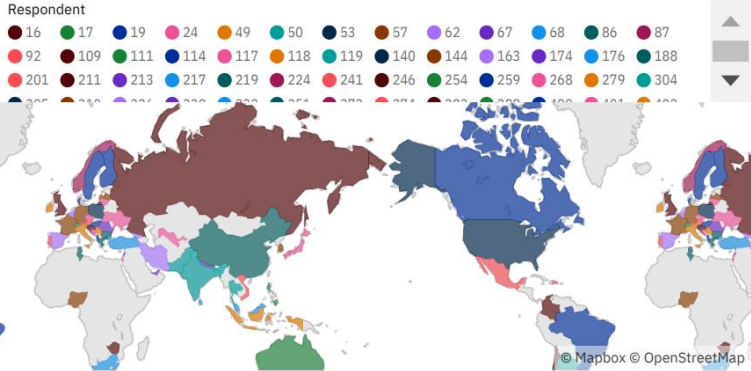
- Woman;Man;Non-binary, genderqueer, or ...
- Woman;Man
- Woman;Non-binary, genderqueer, or ...
- Man;Non-binary, genderqueer, or ...
- Non-binary, genderqueer, or gend...
- Woman
- Man



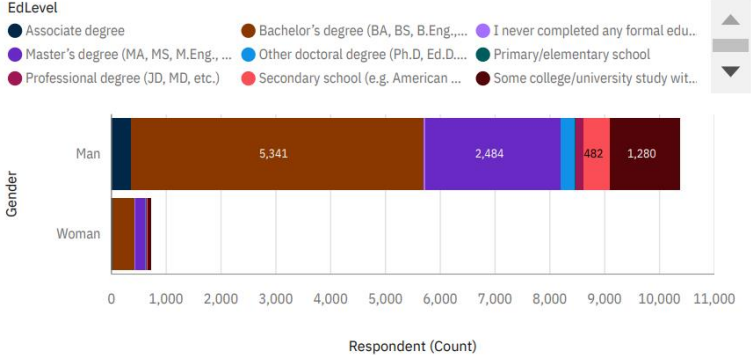
### Respondent by Age



### Respondent for Country regions



### Respondent by EdLevel



# DISCUSSION

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- Relations between genders, education levels, locations, ages and the number of Respondents
- Popular programming tools and techniques

# OVERALL FINDINGS & IMPLICATIONS

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## Findings

- JavaScript is the most highest number of people working with, following by HTML/CSS for both
- PostgreSQL, MongoDB, Redis, ElasticSearch and Firebase will get higher ranking
- The most of respondents come from EU and NA

## Implications

- JavaScript and HTML/CSS keep the trend
- People are more interested in PostgreSQL, MongoDB, Redis, ElasticSearch and Firebase
- People in EU and NA are more interested in IT



# CONCLUSION

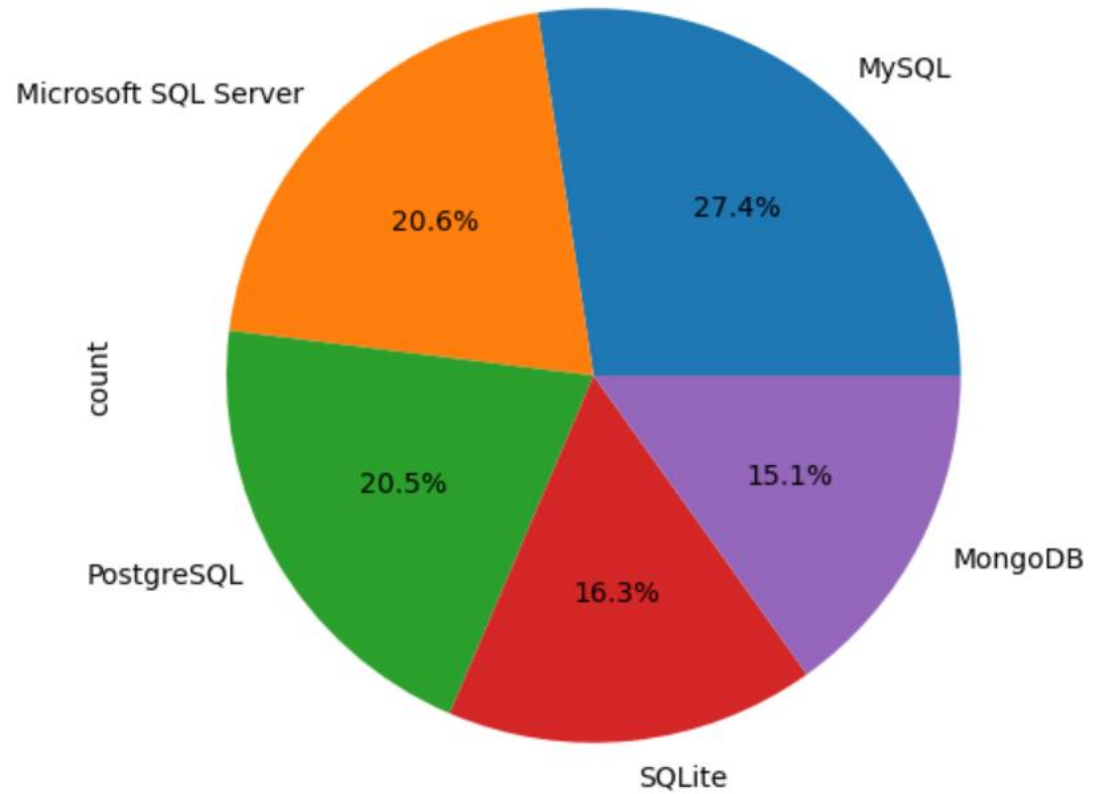
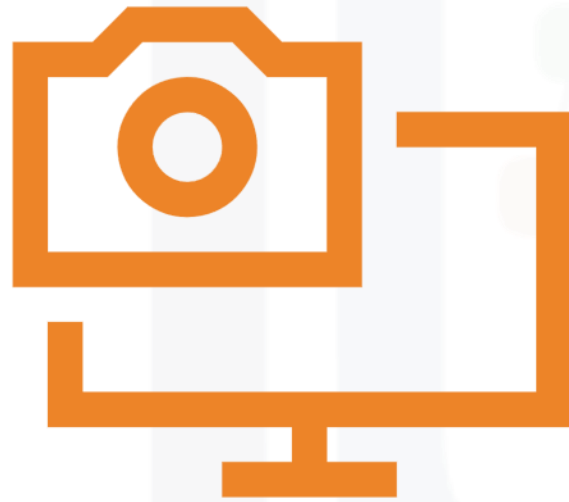
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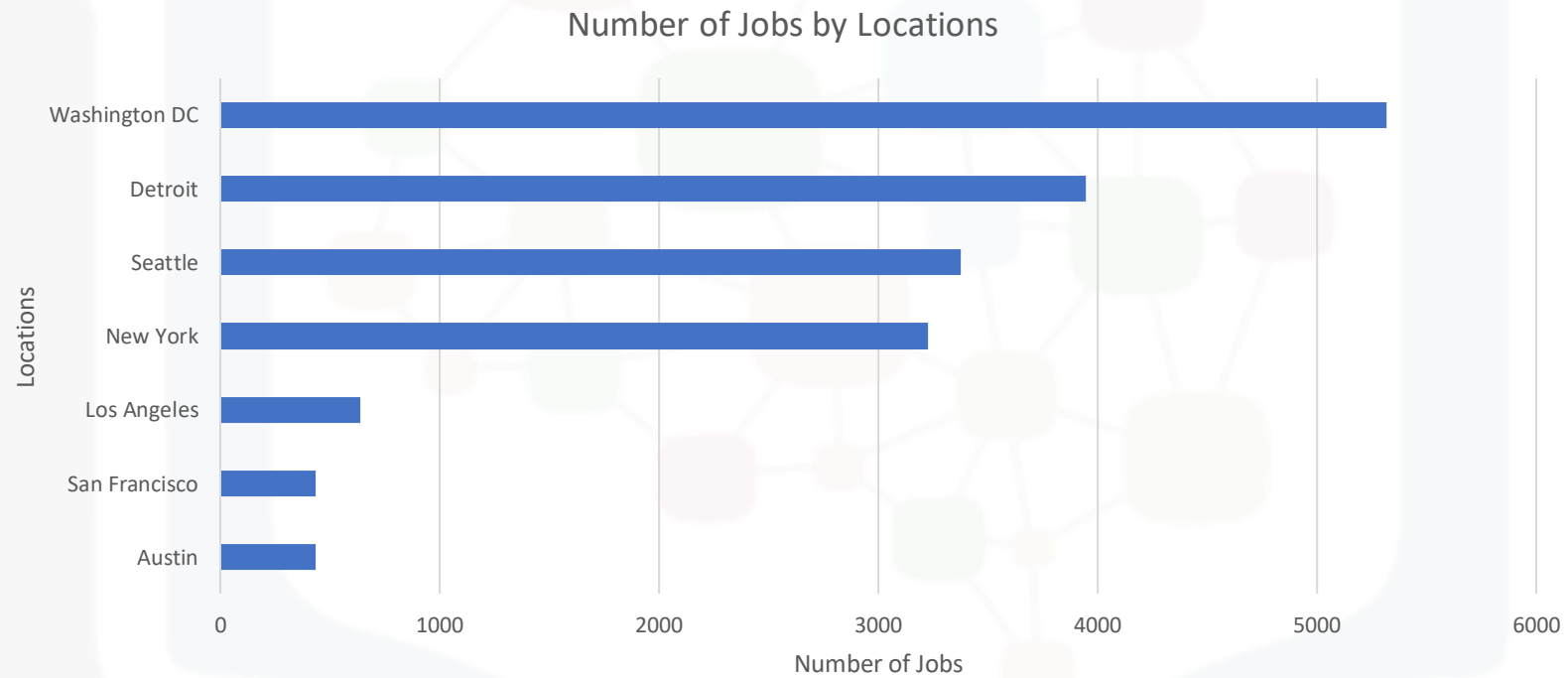
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# APPENDIX

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# JOB POSTINGS



# POPULAR LANGUAGES

