



EMERGING SKILLS

Shiv Modi

24th May 2023

OUTLINE



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

EXECUTIVE SUMMARY



- The primary objective of this analysis is to identify and understand the emerging skills in the IT industry.
- By examining data from various sources, we aim to uncover the skills that are becoming increasingly important and in demand.
- We will analyze current programming language, database, platform and web frame popularity as well as the possibility of upcoming skills regarding programming language, database, platform and web frame
- We will present no. of job openings regarding these skills and job locations
- We will also investigate the salary offered for various programming language skills

INTRODUCTION



- In today's fast-paced and ever-evolving world of technology, staying ahead of the curve is essential for organizations to remain competitive.
- Our organization, a global IT and business consulting services firm, is committed to maintaining our reputation as an industry leaders in IT solutions and leveraging the expertise of our highly experienced IT consultants.
- To achieve this, we recognize the importance of regularly analyzing data to identify emerging trends and anticipate future skill requirements.
- Analyzing emerging skills is essential for our organization's success and competitiveness in the IT industry.
- It empowers us to adapt, upskill, and deliver value to our clients, while attracting and retaining top talent.
- As a Data Analyst, I have been entrusted with collecting data from various sources and conducting an in-depth analysis to identify the emerging skills that will shape the IT industry in the coming years.

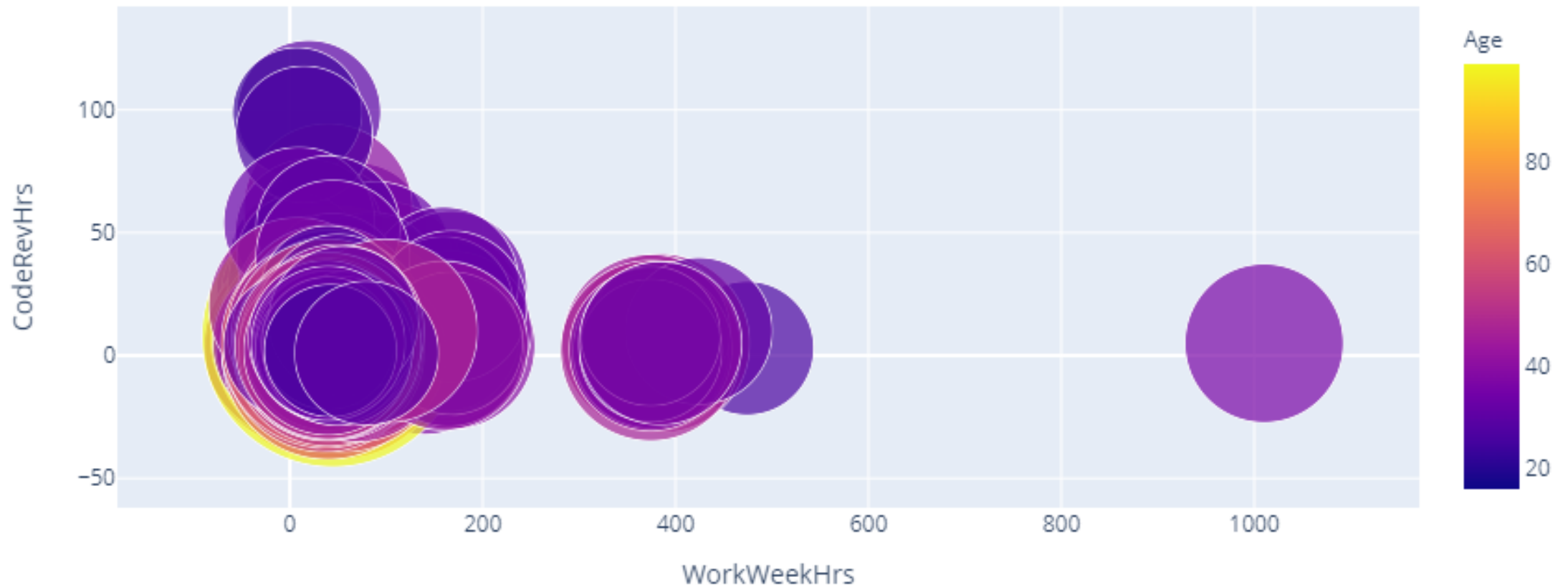
METHODOLOGY



- We used job posting data from following dataset. It will help to analyze current skills need.
 - <https://www.kaggle.com/datasets/promptcloud/jobs-on-naukricom>
- We took a survey from people doing jobs in a firm. It will explain current and future skills requirements.
 - https://cf-courses-data.s3.us.cloud-object-storage.appdomain.cloud/IBM-DA0321EN-SkillsNetwork/LargeData/m4_survey_data.sqlite
- Following link provides annual salary for each technical skills
 - https://cf-courses-data.s3.us.cloud-object-storage.appdomain.cloud/IBM-DA0321EN-SkillsNetwork/labs/datasets/Programming_Languages.html

RESULTS

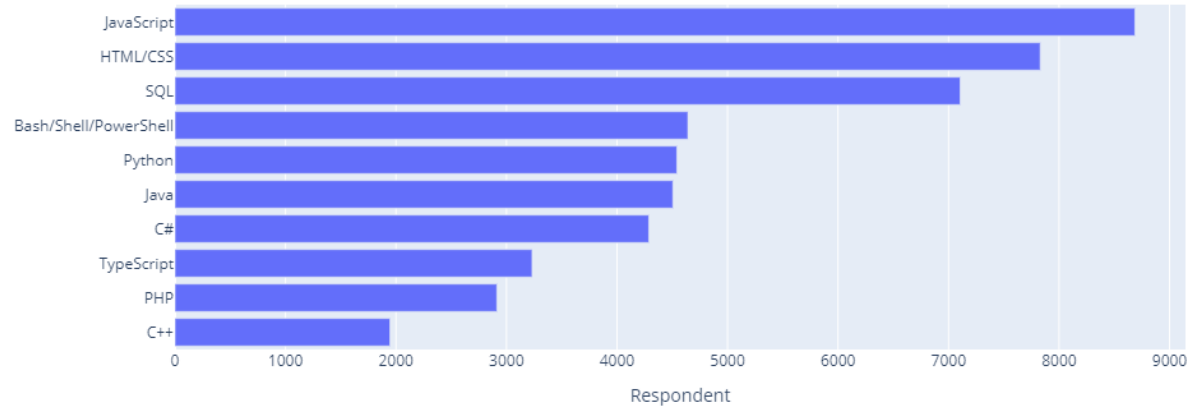
Work Week Hrs and Code Rev Hrs by Age



PROGRAMMING LANGUAGE TRENDS

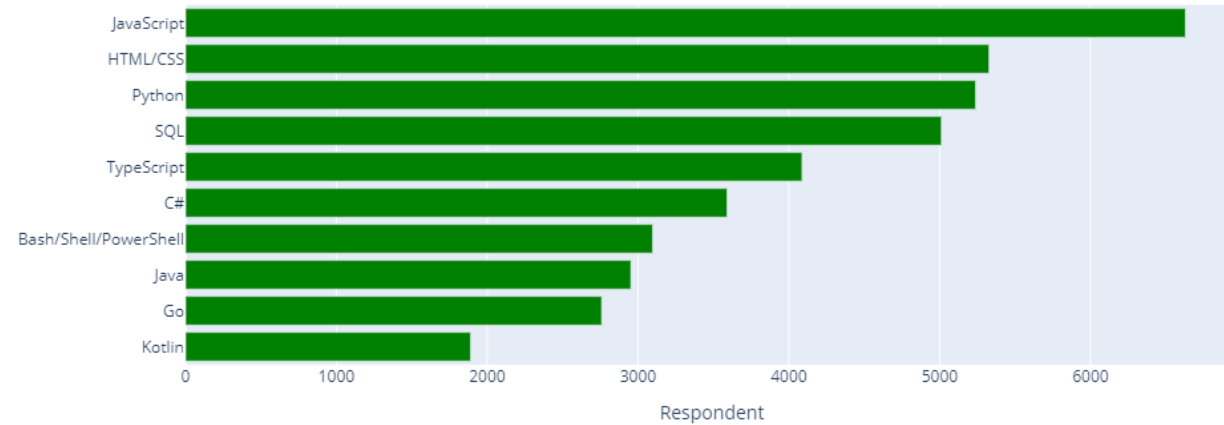
Current Year

Current Year Worked Language



Next Year

Next Year Desire Language



PROGRAMMING LANGUAGE TRENDS - FINDINGS & IMPLICATIONS

Findings

- Java Scripts and HTML/CSS is most required skills set now and in future
- Python and SQL skills will be desired in future
- There will be new emerging skills like Go and Kotlin in near future

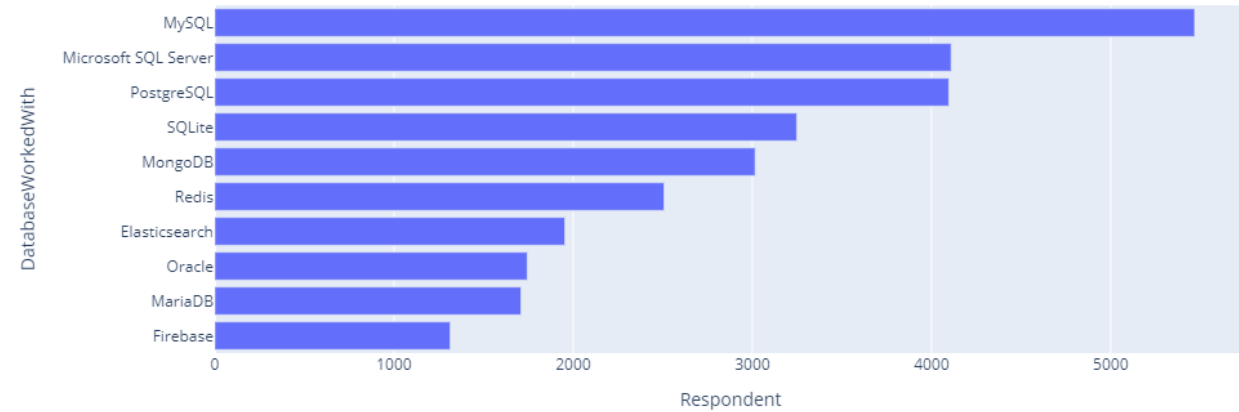
Implications

- Practice sessions on Java Scripts, HTML/CSS
- Hire desired skills like Python and SQL in near future
- Brainstorming sessions on new skills Go and Kotlin

DATABASE TRENDS

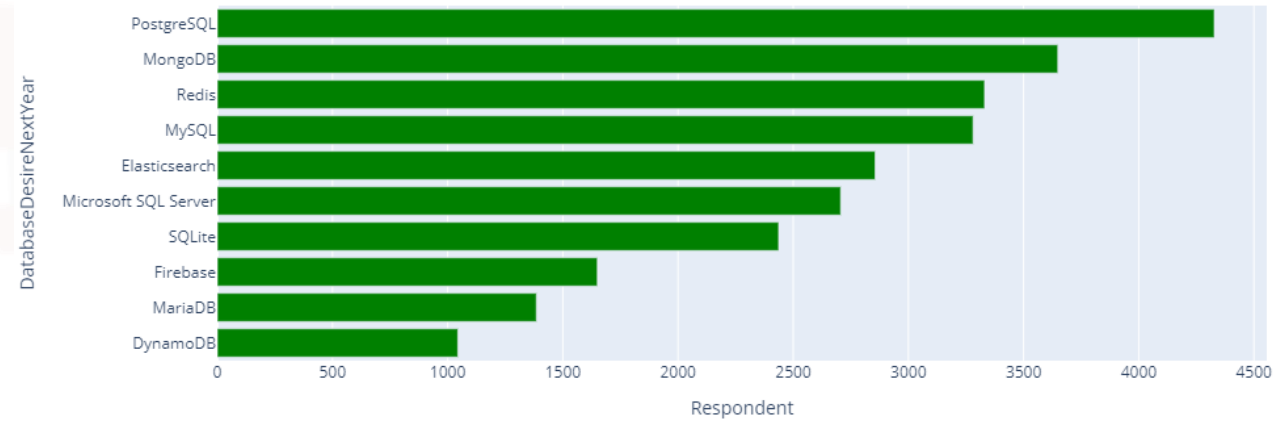
Current Year

Current Year Worked Database



Next Year

Next Year Desire Database



DATABASE TRENDS - FINDINGS & IMPLICATIONS

Findings

- MySQL is most current working database
- PostgreSQL, MongoDB, Redis, Elasticsearch databases will be required in next year
- New DynamoDB, Firebase databases will be emerged

Implications

- Practice sessions on MySQL
- Hire desired skills like PostgreSQL, MongoDB in near future
- Brainstorming sessions on new skills DynamoDB, Firebase

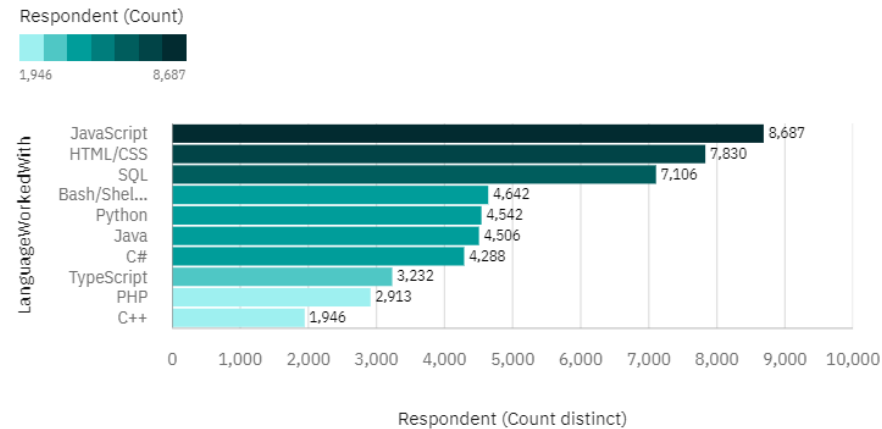
DASHBOARD



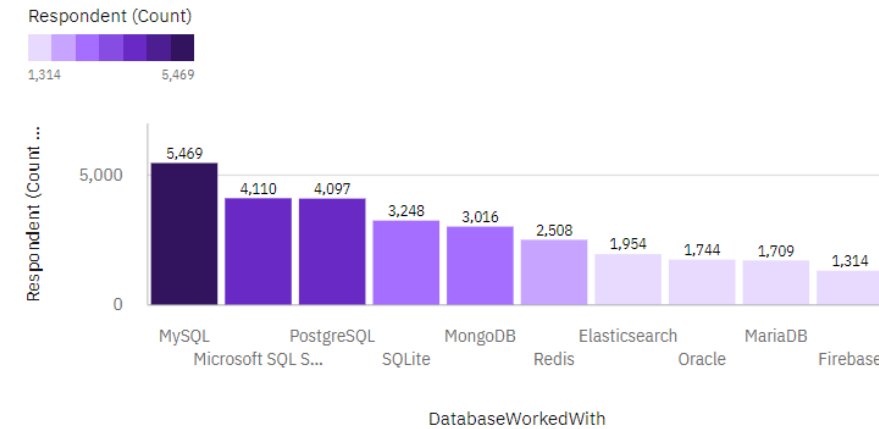
https://ap2.ca.analytics.ibm.com/bi/?perspective=dashboard&pathRef=.my_folders%2FCapstone&action=view&mode=dashboard&subView=model00000188429572c0_00000000

CURRENT TECHNOLOGY USAGE

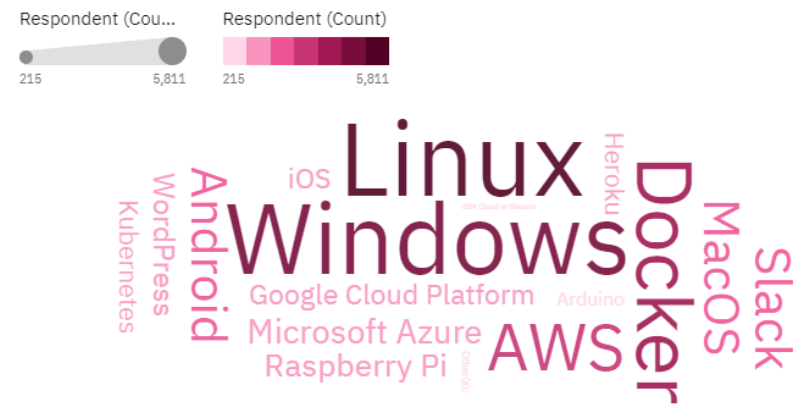
Top 10 Language Worked With by Respondent



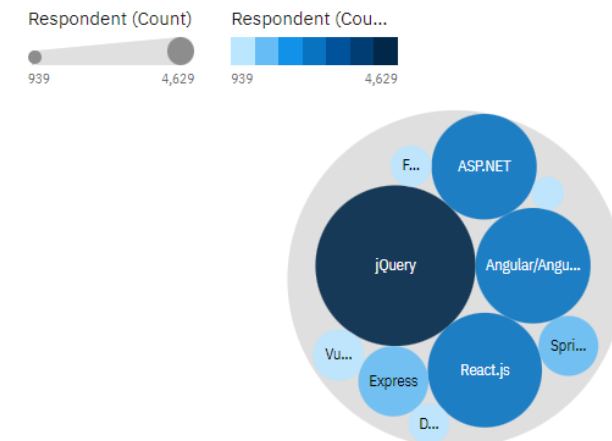
Top 10 Database Worked With by Respondent



Platform Worked With by Respondent Workcloud

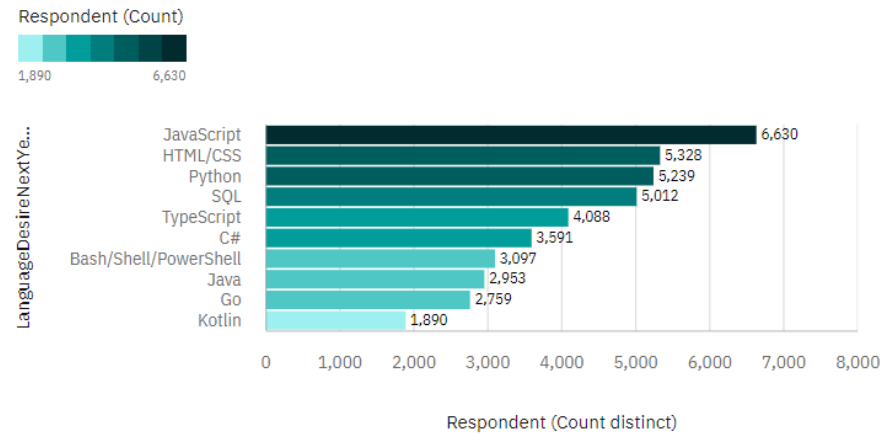


Top 10 WebFrame Worked With by Respondent Hierarchy

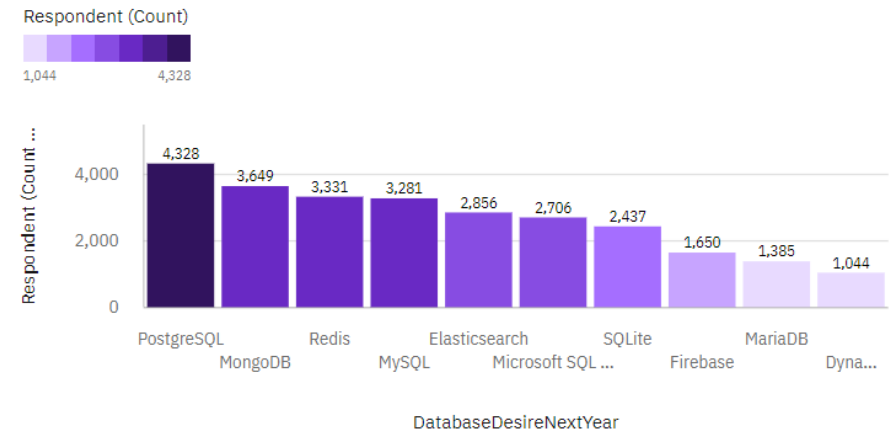


FUTURE TECHNOLOGY TREND

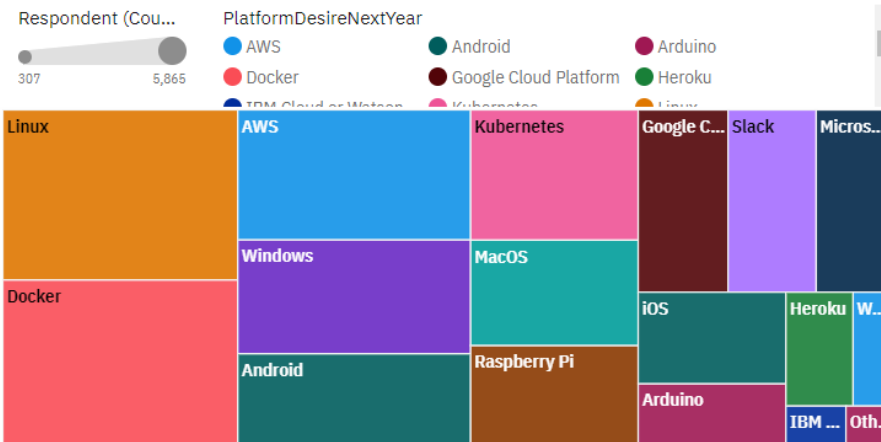
Top 10 Language Desire Next Year by Respondent



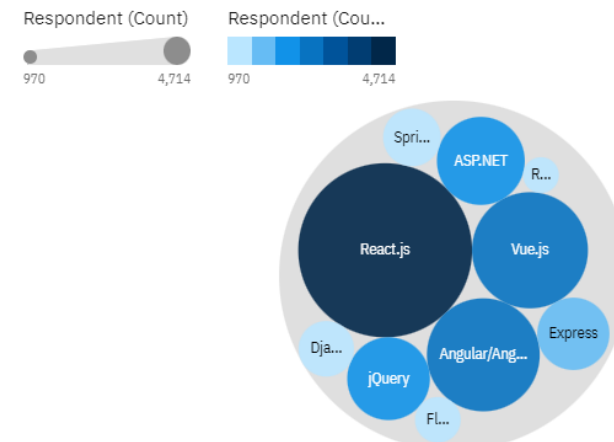
Top 10 Database Desire Next Year by Respondent



Platform Desire Next Year by Respondent Treemap



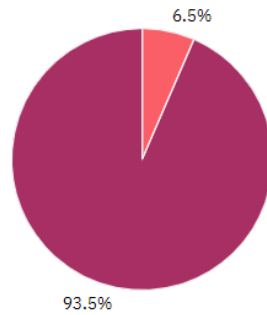
Top 10 WebFrame Desire Next Year by Respondent Hierarchy



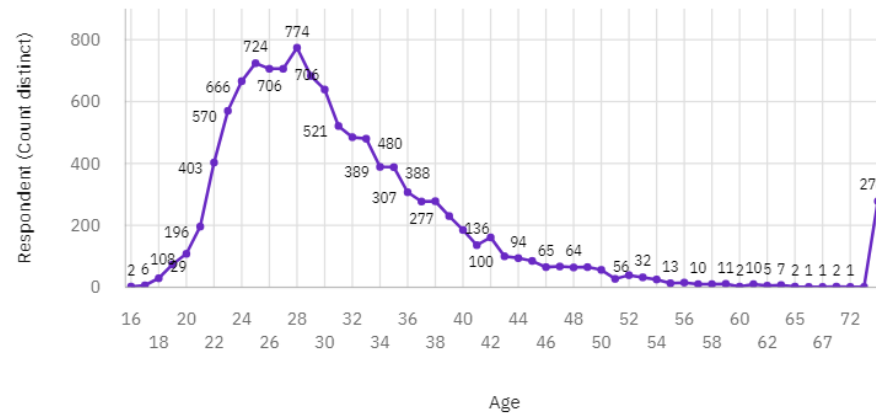
DEMOGRAPHICS

Respondents classified by Gender

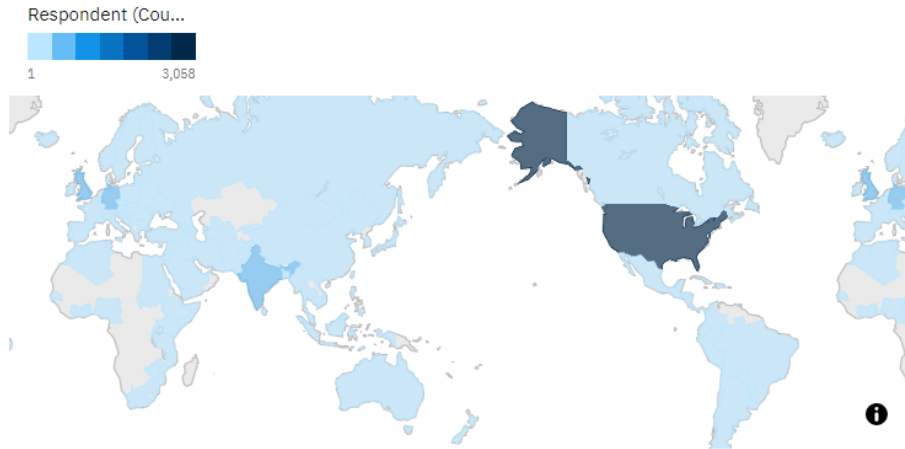
Gender
● Woman ● Man



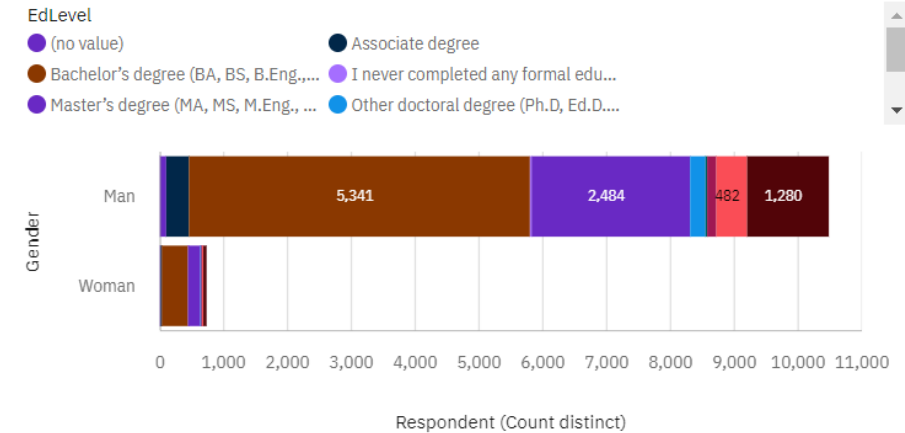
Respondent count by Age



Respondent count for Country regions



Respondent count by Gender classified by Formal Edu Level



DISCUSSION



- Docker will be the more desired platform next year, replacing Windows
- jQuery will be replaced by React.js next year
- Hire based on skills in platform Linux, Docker and web frame React.js
- Next hiring should be from other than the US and keeping the gender ratio decreasing

OVERALL FINDINGS & IMPLICATIONS

Findings

- Gender ratio is large
- Maximum responders are from 24-32 age
- Maximum responders are from USA

Implications

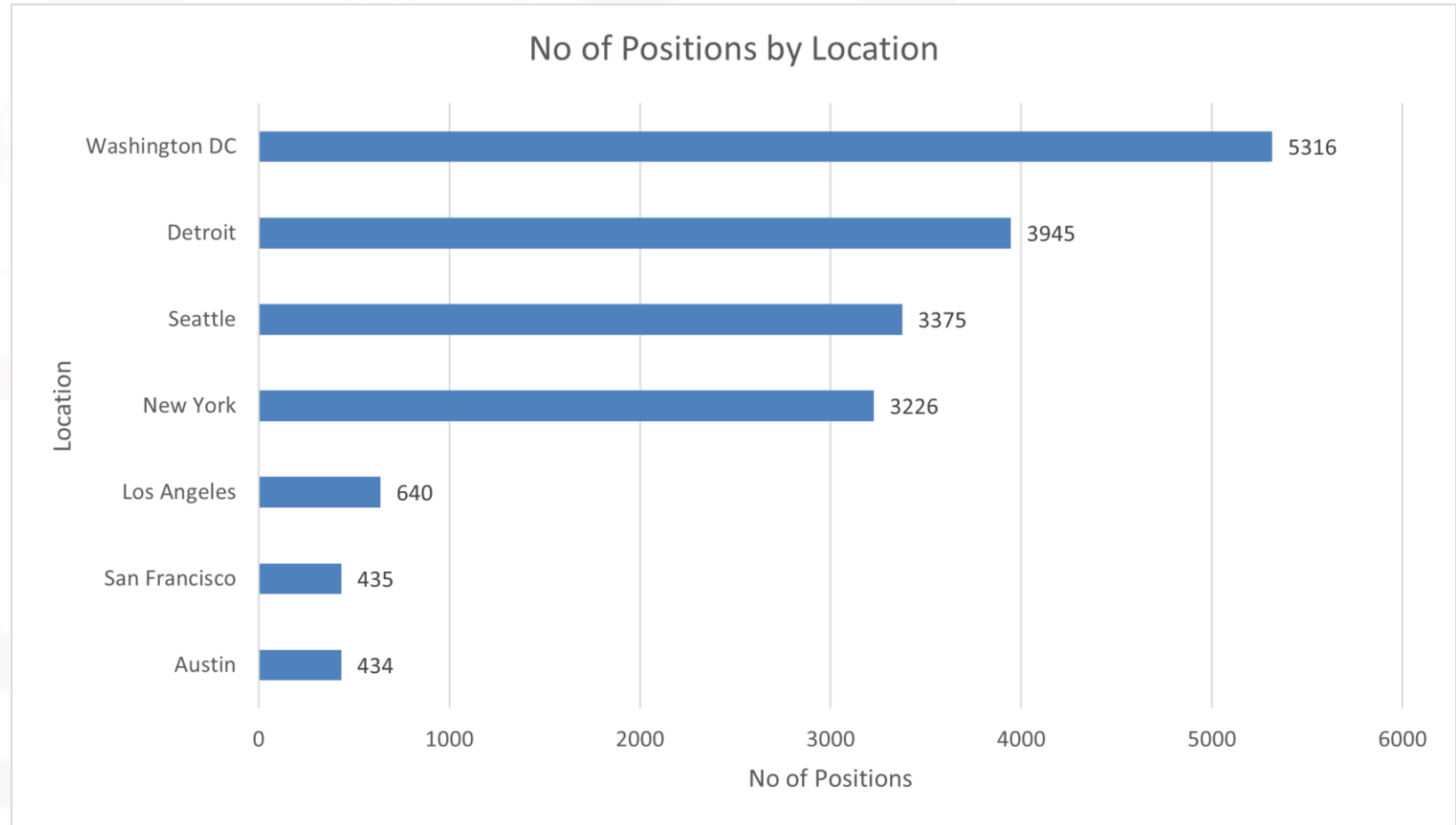
- Empower women by hiring and training-upskilling current women
- Fresh mind work active, initiate collage student internship
- Extend job applications from overseas

CONCLUSION

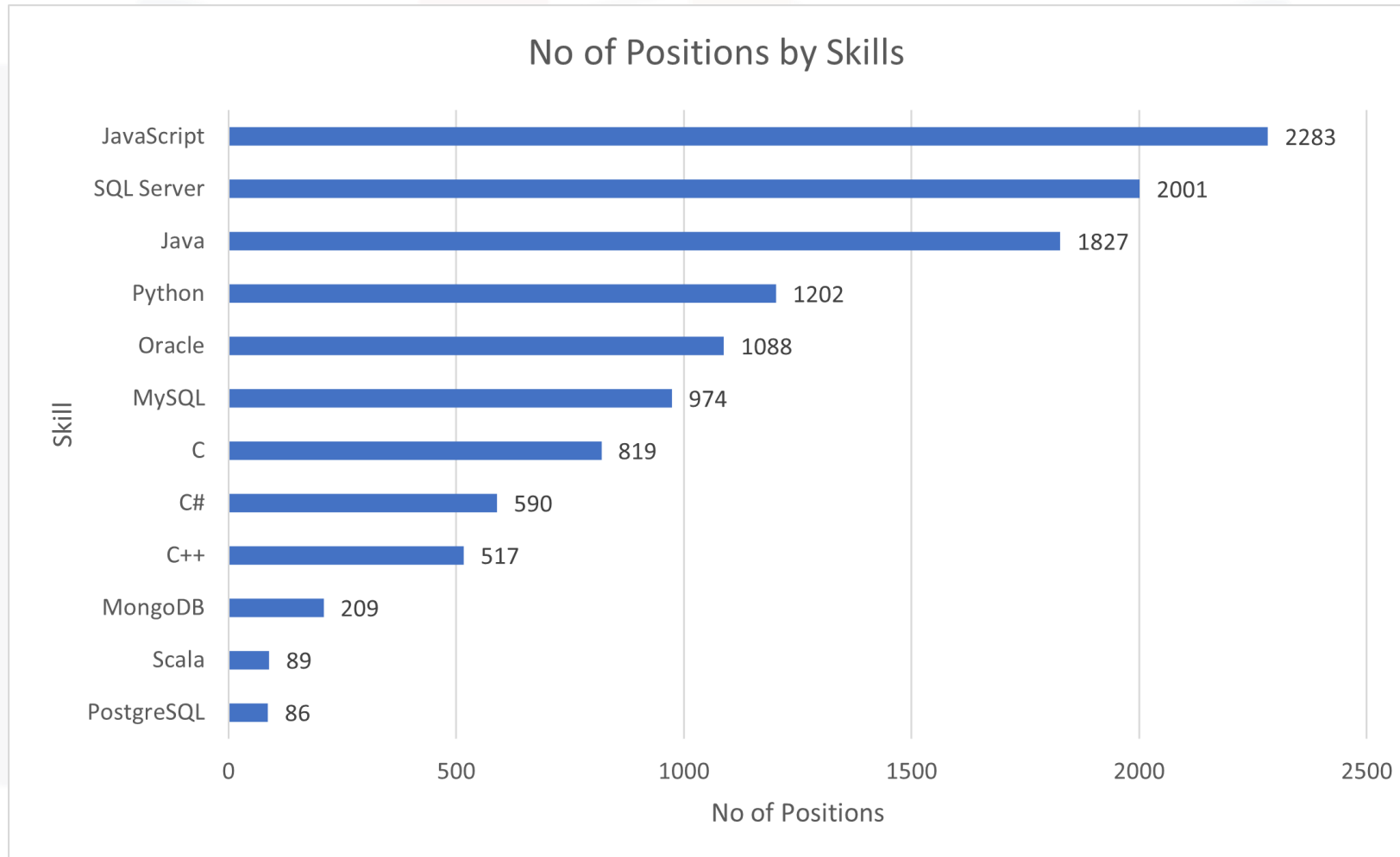


- We must practice current skills while initiating training for upcoming new skills
- Brainstorming sessions to enhance current skills, which will also dominate in future
- Learning sessions can be conducted to excel in upcoming skills
- Increase hiring of young minds
- Reduce gender ratio and enhance diversity from overseas in firm

APPENDIX



JOB POSTINGS



POPULAR LANGUAGES

