



Analysis of Emerging Trends in Technology & Technical Skills

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9.10.2024

OUTLINE



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EXECUTIVE SUMMARY



- Developing current skills in the technology field is constant in an environment of consistent change & innovation.
- To keep pace with emerging technologies requires consistent upskilling.
 - New certifications.
 - New training classes.
 - New hands-on skills.
- We will present the current trends in Programming Languages, Databases, Platforms, and Web Frames.
- Technology Industry Demographical Survey.
- Show Demographic Results from all over the world.

INTRODUCTION



- Share Global Tech Trends in software, application, & web development directly from developers.
- Identify future required technical skills in the tech sector to keep pace with emerging technologies
- Assist job seekers and hiring managers with what technical skills are currently the most popular.
- This presentation will benefit the following
 - Coders. Programmers. Developers. Architects.
 - IT Managers. HR Managers. Business Owners.
 - High School & College Students
 - Individuals changing careers
 - Entrepreneurs

METHODOLOGY



- Data Collection / Data Scraping
 - Stack Overflow 2019 Developer Survey
 - GitHub Job Postings
 - Annual Developer Salary by Programming Language
- Data Wrangling
- Data Exploration
- Data Cleansing
- Data Visualization
 - Jupyter Notebook
 - Python Seaborn & Matplotlib
 - Google Looker

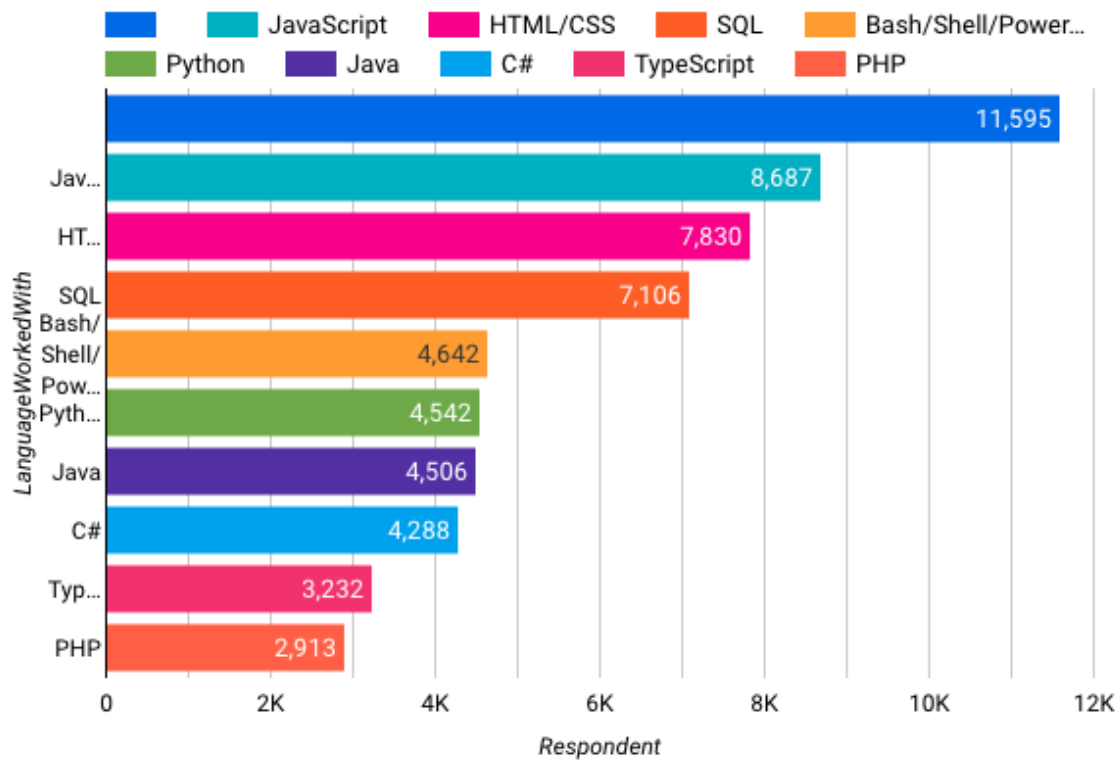
RESULTS



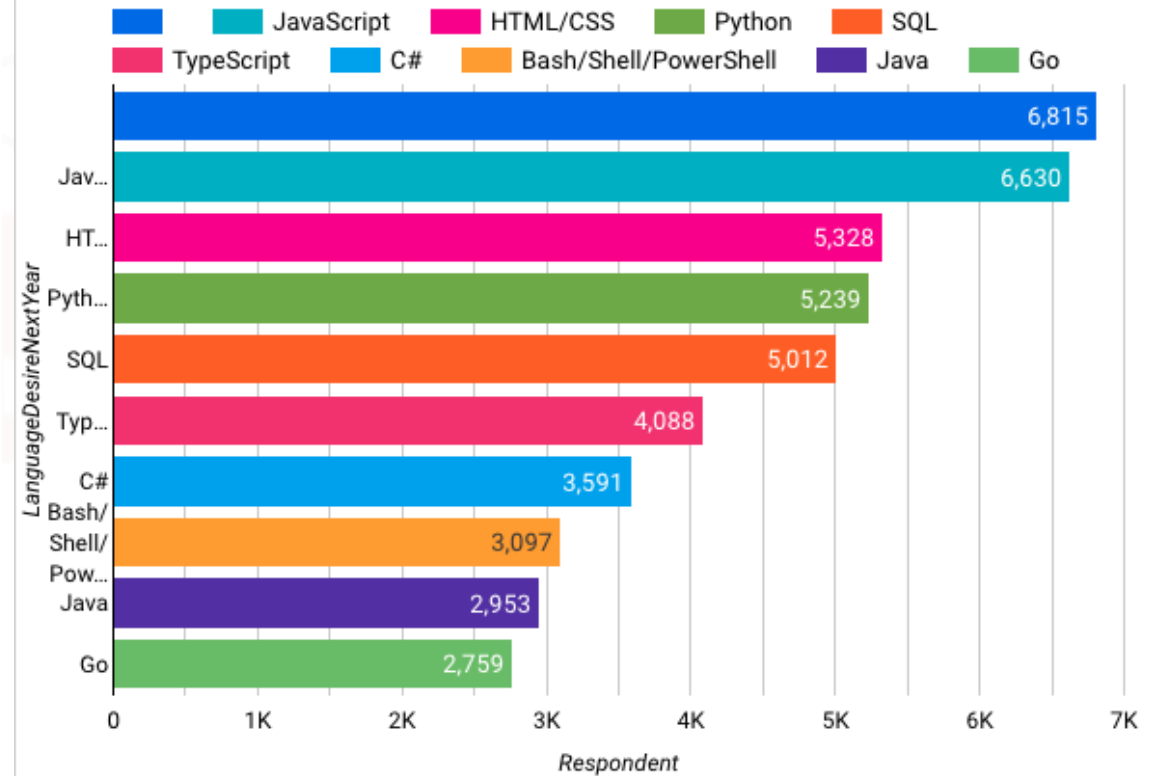
<https://pixabay.com/illustrations/success-strategy-business-solution-2081167/>

PROGRAMMING LANGUAGE TRENDS

Top 10 LanguageWorkedWith



Top 10 Languages Desired To Learn Next Year



PROGRAMMING LANGUAGE TRENDS - FINDINGS & IMPLICATIONS

Findings

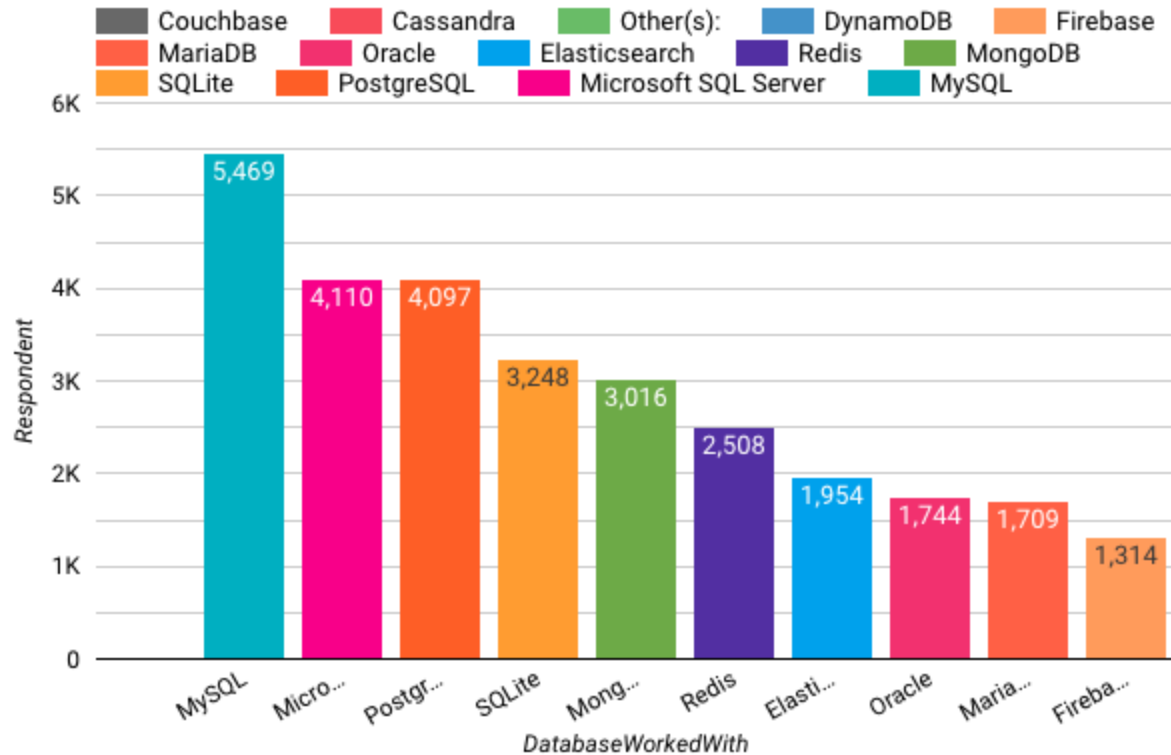
- JavaScript is #1 on both lists
- HTML/CSS is #2 on both lists
- SQL, Shell/Bash/Power Shell, and Python remain very popular on both lists.
- TypeScript is an up and coming language.

Implications

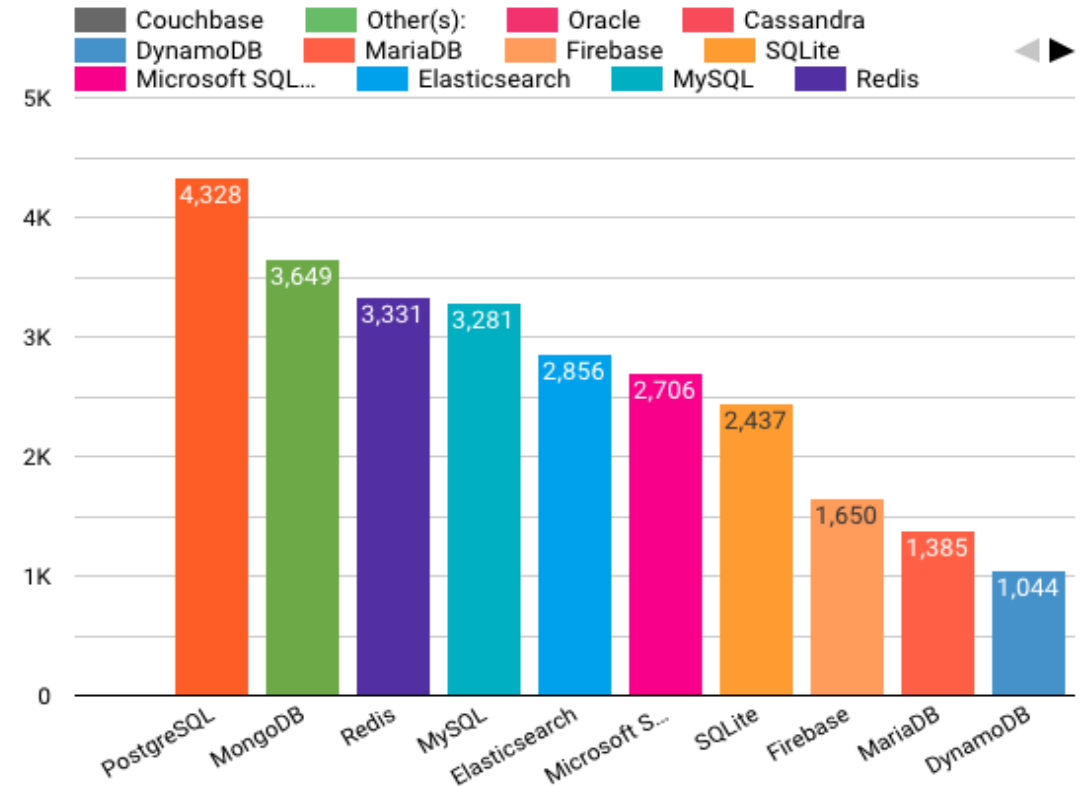
- JavaScript is versatile for front end, back end, and full-stack developers.
- HTML/CSS shows front end web design & development is in demand.
- SQL & Python reveal Data Science & AI remains popular for developers.

DATABASE TRENDS

Top 10 Databases Worked With



Top 10 Databases Desired To Learn Next Year



DATABASE TRENDS - FINDINGS & IMPLICATIONS

Findings

- MySQL, MSSQL, & PostgreSQL are popular on both lists.
- MongoDB & Redis are becoming more popular.
- RBDMS and NoSQL are still quite popular

Implications

- RBDMS and NoSQL are both needed for business use.
- Consistency vs Availability remains an open debate.
- Consistency vs Scalability also remains an open debate.

DASHBOARD



[Click to view the Google Looker Dashboard.](#)

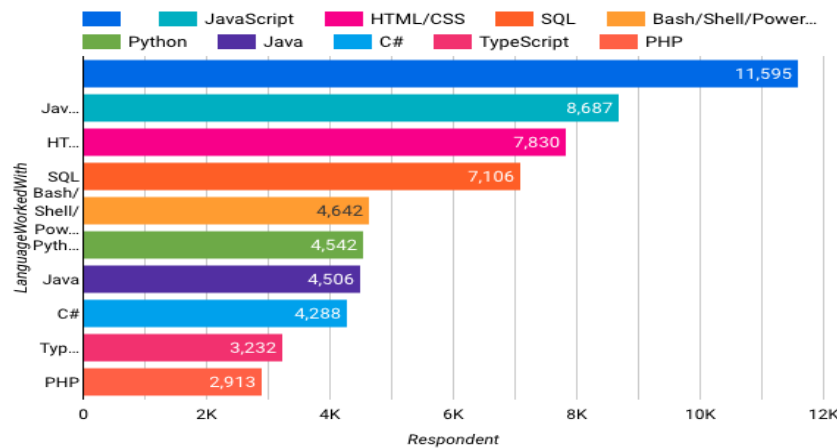
DASHBOARD TAB 1

Current Technology Usage

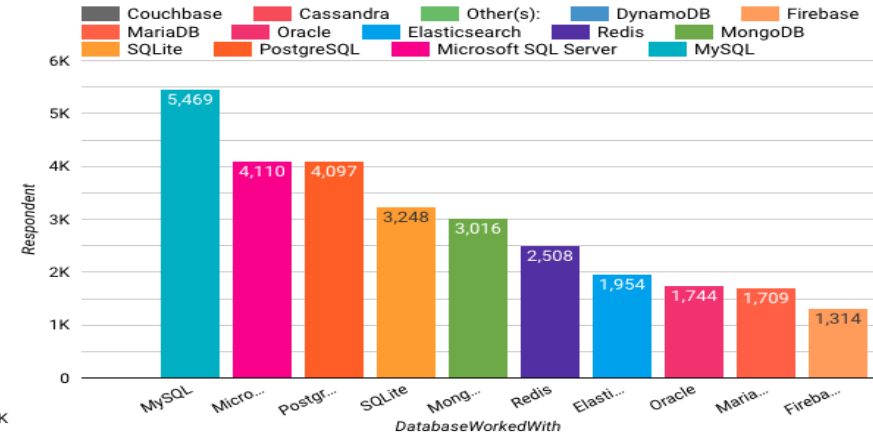
Future Technology Trend

Demographics

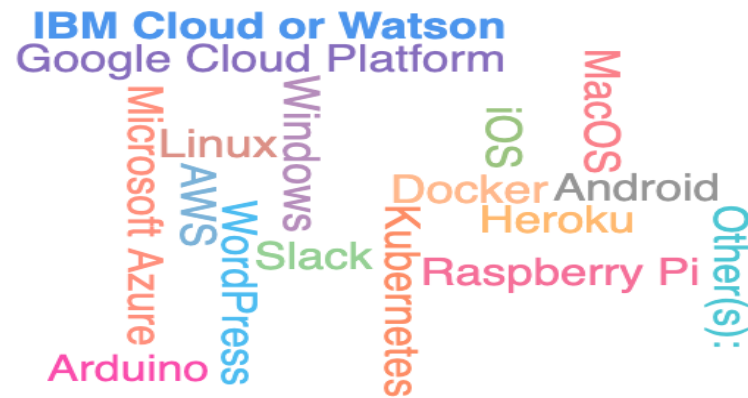
Top 10 LanguageWorkedWith



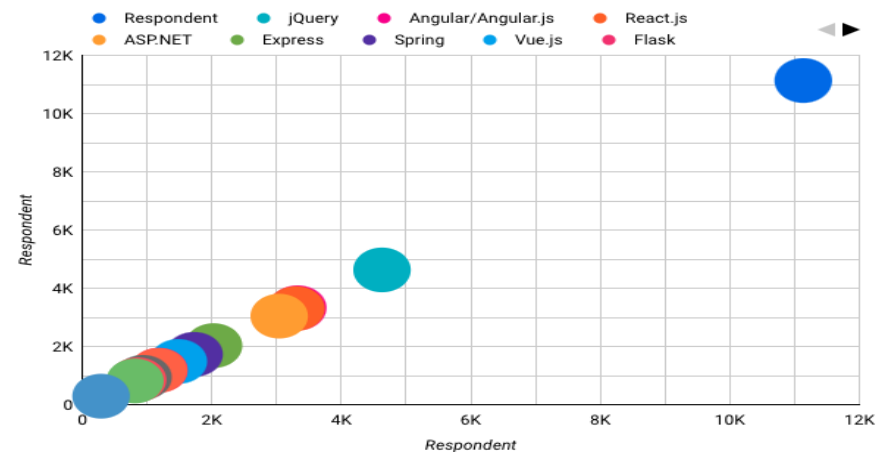
Top 10 Databases Worked With



Platform Worked With



Top 10 WebFrameWorkedWith



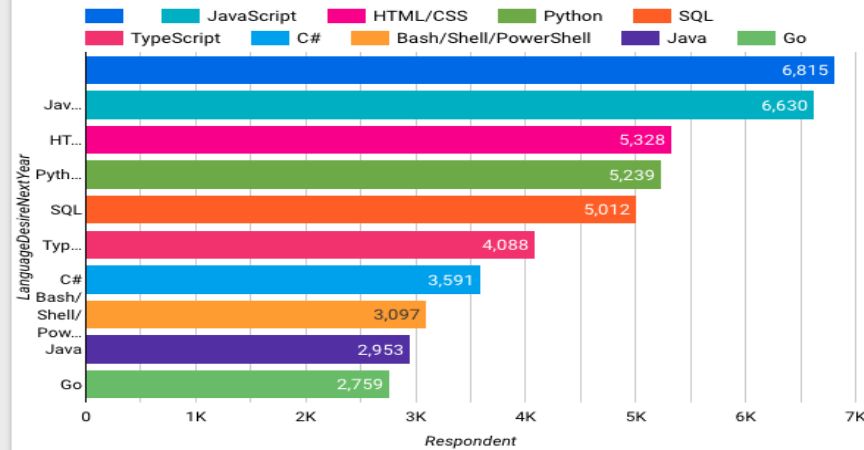
DASHBOARD TAB 2

Current Technology Usage

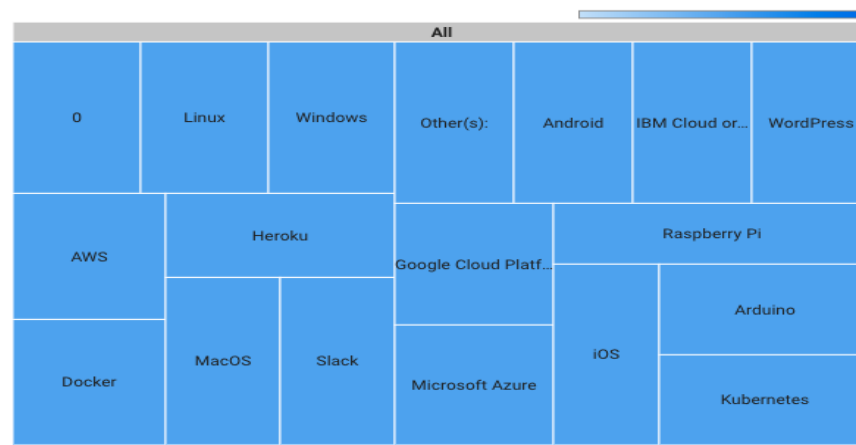
Future Technology Trend

Demographics

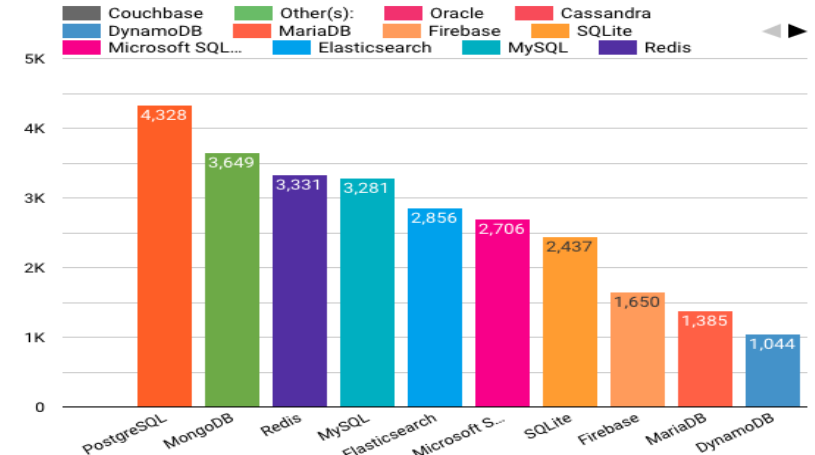
Top 10 Languages Desired To Learn Next Year



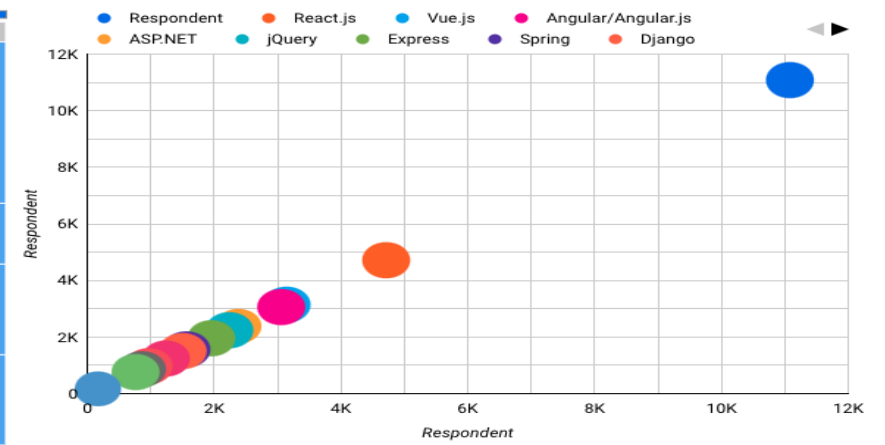
Platform Desired To Learn Next Year



Top 10 Databases Desired To Learn Next Year



Top 10 WebFrames Desired To Learn Next Year



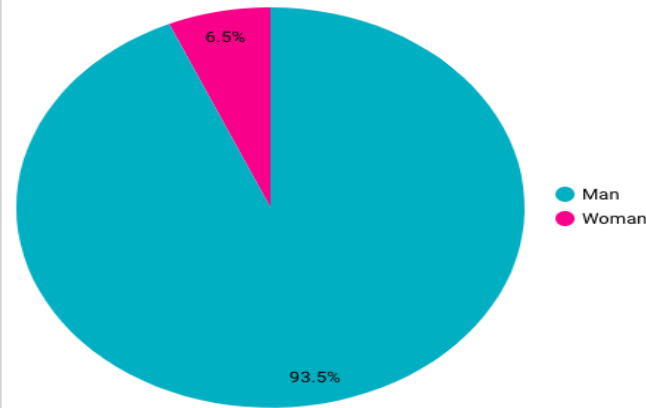
DASHBOARD TAB 3

Current Technology Usage

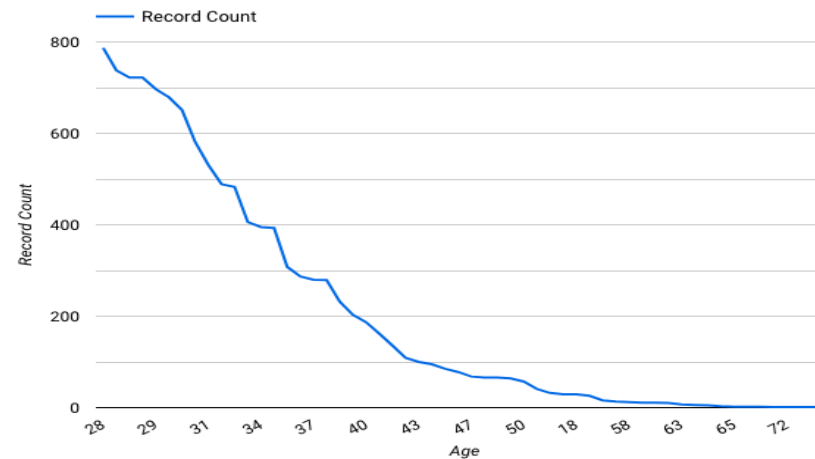
Future Technology Trend

Demographics

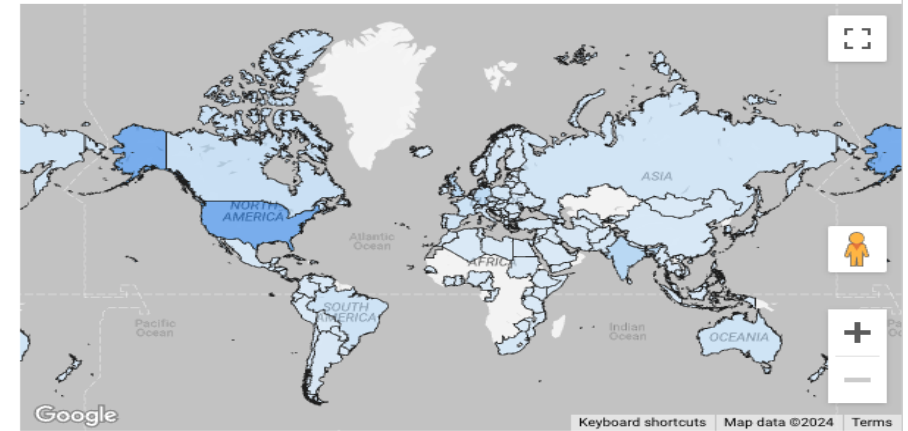
Respondent Classified by Gender



Respondent Count by Age

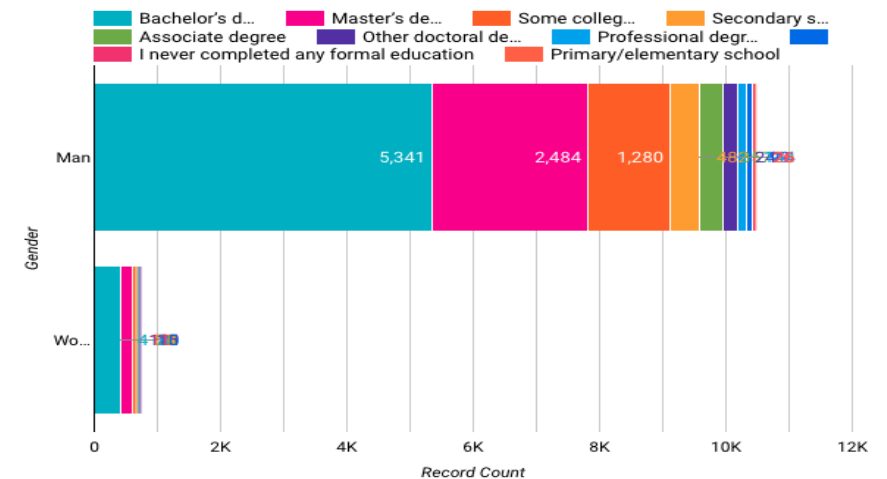


Respondent Count by Country



Record Count 1 3,127

Respondent Count by Gender, classified by Formal Education Level



DISCUSSION



<https://pixabay.com/illustrations/network-communication-connection-6470010/>

OVERALL FINDINGS & IMPLICATIONS

Findings

- Most developers responding to the survey live in the developed world.
- USA is #1 in Technology
- Gender & Age Discrimination are prevalent.

Implications

- Developers need to stay current on their technical training.
- The Tech Industry remains a male dominated.
- Age & Gender shouldn't remain as barriers to entry in the Tech Industry.

CONCLUSION

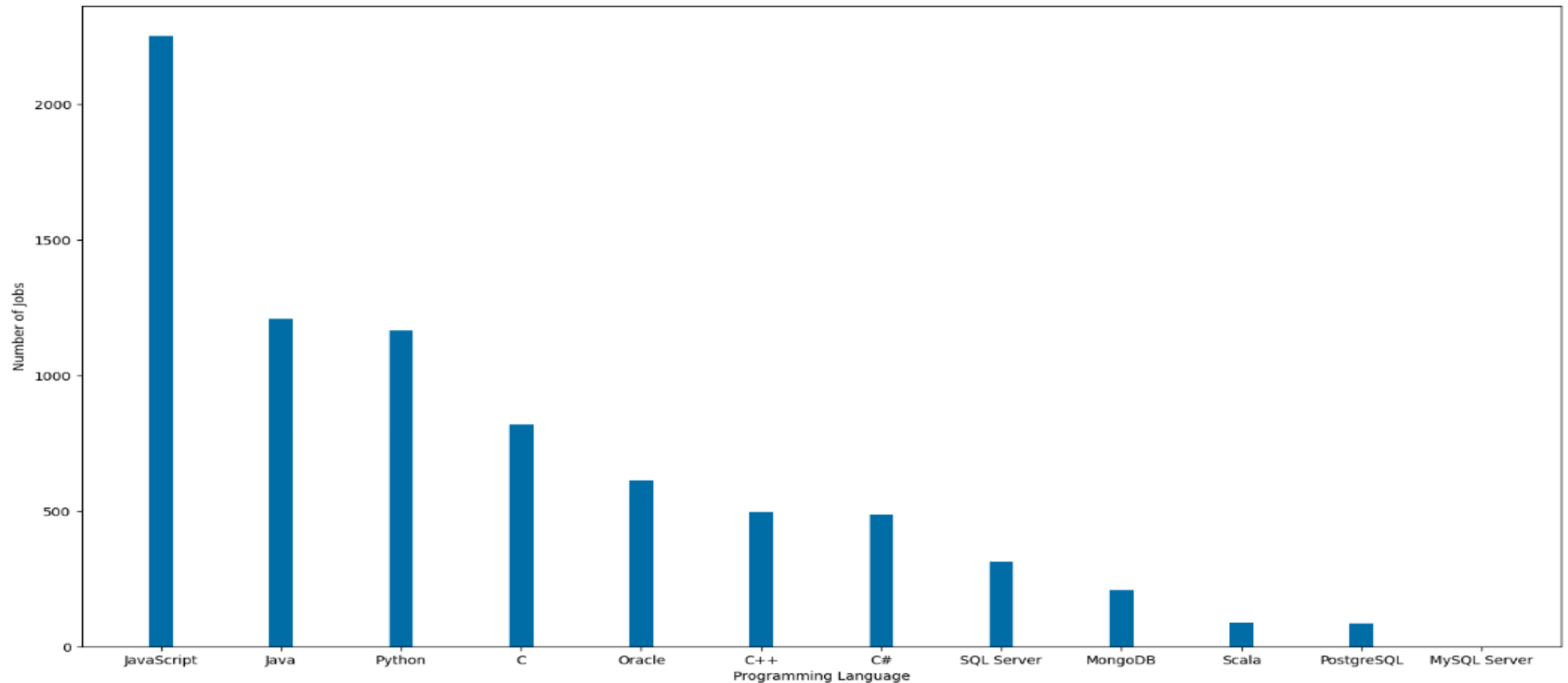


- Upskilling and retraining need to be a shared responsibility between developers & employers.
- Technical skills & Technical training should be accessible to everyone.
- Self-taught or College Educated should have equal access to opportunity in the Tech industry.
- Emerging technologies are & will be a constant.

APPENDIX



JOB POSTINGS



POPULAR LANGUAGES

