



Navigating the Future: Data-Driven Insights into IT Skills Landscape

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OUTLINE



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- Introduction
- Methodology
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 - Visualization – Charts
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- Discussion
 - Findings & Implications
- Conclusion
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EXECUTIVE SUMMARY



- Current technology usage trend
 - Top Languages
 - Top Databases
 - Platform
 - Top Web Frameworks
- Future technology usage trend
 - Top Languages
 - Top Databases
 - Platform
 - Top Web Frameworks
- Demographics Survey Overview
 - Age, Gender, Education level distribution
- Top Languages by Annual Salary
 - Relationship Between Language Proficiency and Compensation

INTRODUCTION



- Welcome to our analysis of global technology trends in software and web development.
- In the fast-paced world of IT, staying ahead is crucial.
- This analysis aims to identify current and future demands, focusing on top languages, frameworks, and databases.
- We're committed to optimizing our human resources to meet evolving needs, ensuring our organization remains at the forefront of innovation.

METHODOLOGY



- Data collection
 - Stack overflow developer 2019 survey
 - GitHub job posting
 - Annual salary by programming language
- Data wrangling
- Data exploration
- Data cleaning
- Data visualization
 - Python Matplotlib, Seaborn
 - IBM Watson studio
- Insights presentation

RESULTS

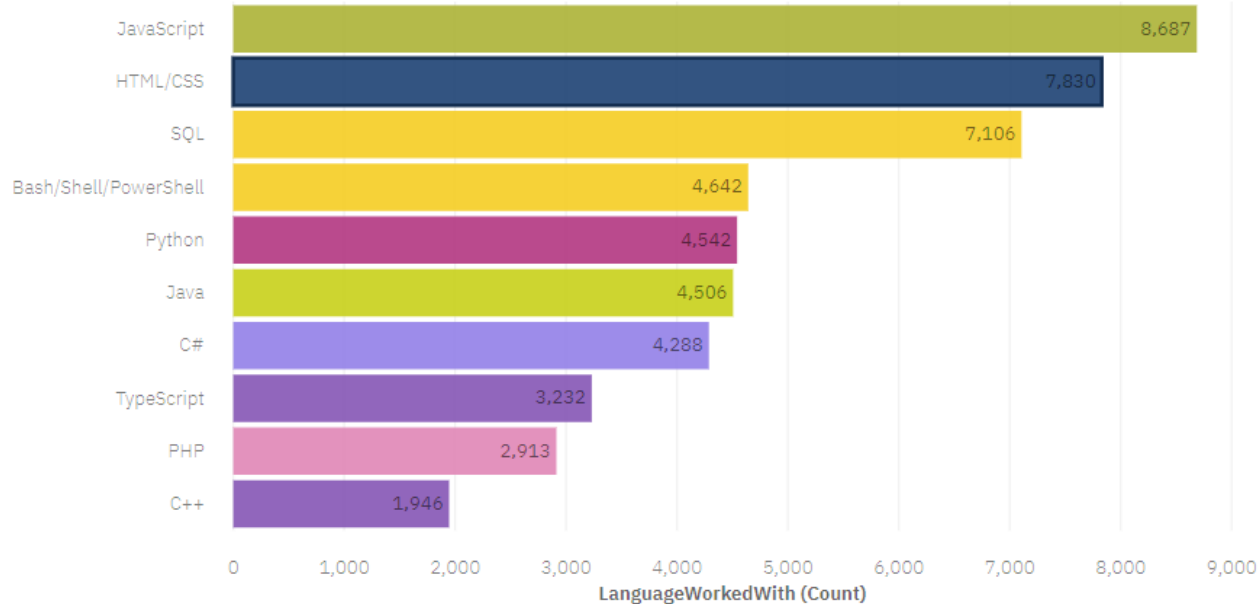


- **PROGRAMMING LANGUAGE TRENDS**
 - PROGRAMMING LANGUAGE TRENDS - FINDINGS & IMPLICATIONS
- **DATABASE TRENDS**
 - DATABASE TRENDS - FINDINGS & IMPLICATIONS

PROGRAMMING LANGUAGE TRENDS

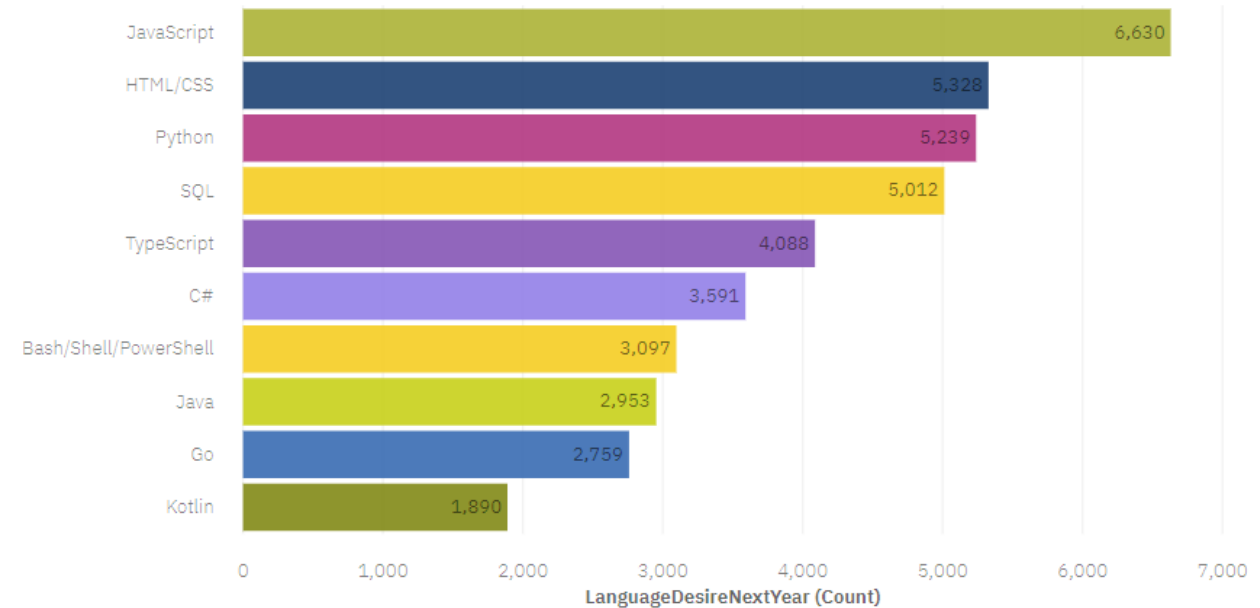
Current Year

Top 10 Languages



Next Year

Top 10 Languages



PROGRAMMING LANGUAGE TRENDS - FINDINGS & IMPLICATIONS

Findings

- Frontend languages like JavaScript and HTML/CSS are the most trending
- Python and TypeScript are becoming more popular
- GO and Kotlin entered in the top 10 for next year

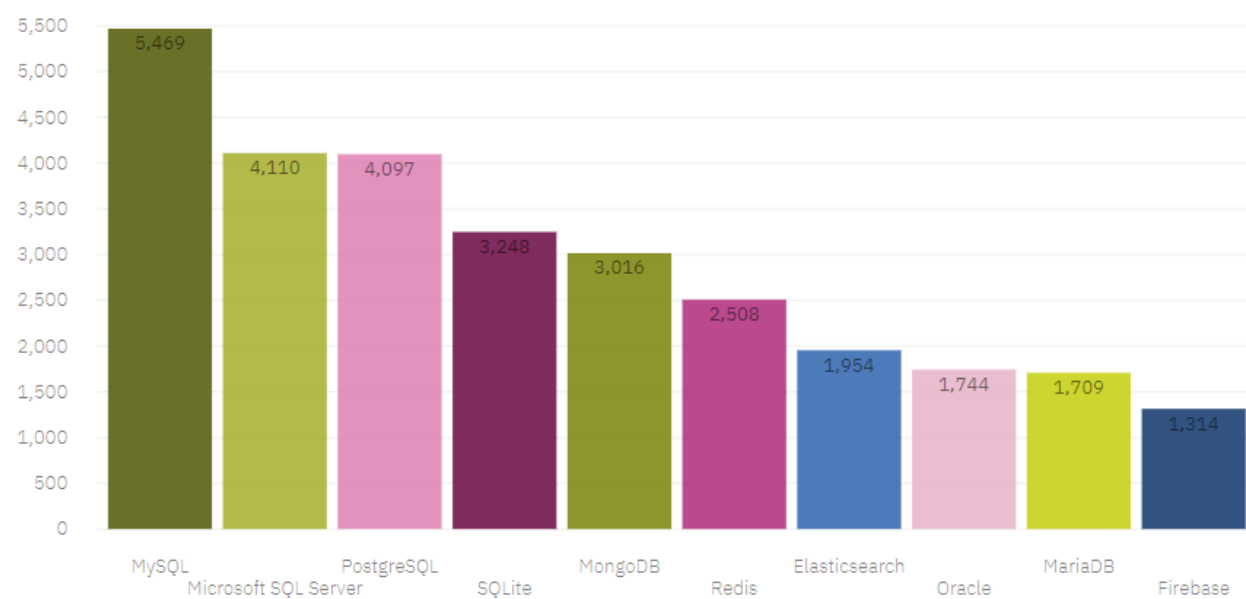
Implications

- Web development is highly demanded
- Future developers should pay attention to GO and Kotlin
- Python is on a positive trend to become the most trending language in the near future

DATABASE TRENDS

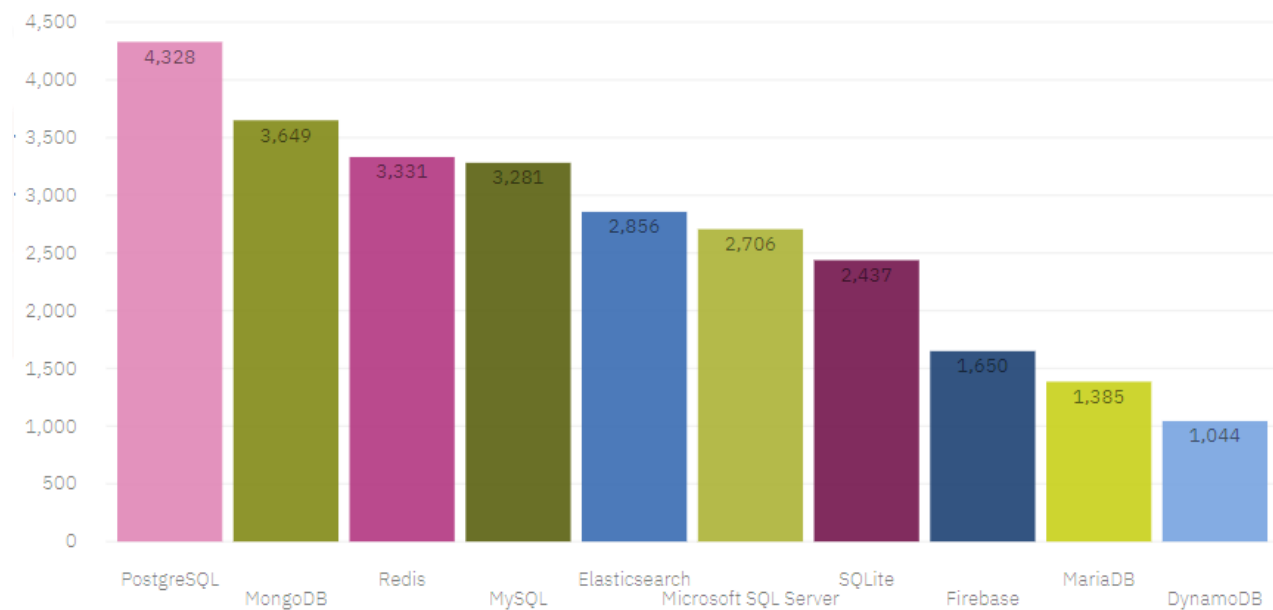
Current Year

Top 10 Databases



Next Year

Top 10 Databases



DATABASE TRENDS - FINDINGS & IMPLICATIONS

Findings

- MySQL is the most popular database
- Growing trend towards the use of NoSQL databases like MongoDB and Redis
- Microsoft SQL Server is still highly demanded

Implications

- Open-source databases are still preferable option
- SQL is a highly sought-after language in use
- NoSQL databases are emerging as strong contenders and rivals for traditional relational databases.

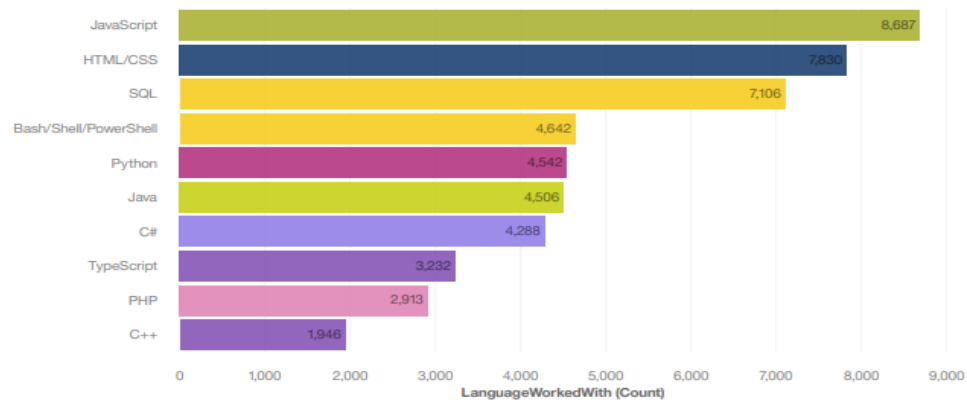
DASHBOARD



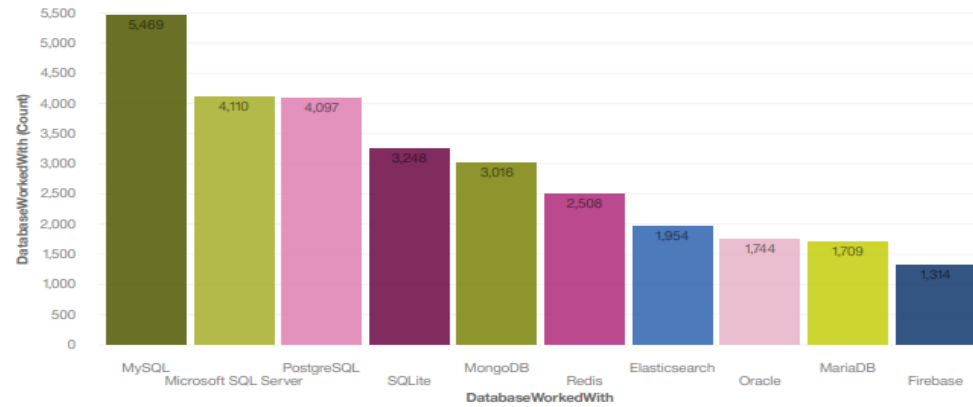
Here is the link to Dashboard for more detailed information:
[IBM Watson Studio Dashboard](#)

DASHBOARD TAB 1

Top 10 Languages



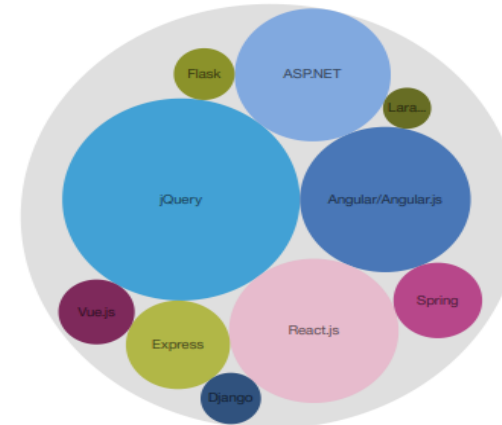
Top 10 Databases



Platforms

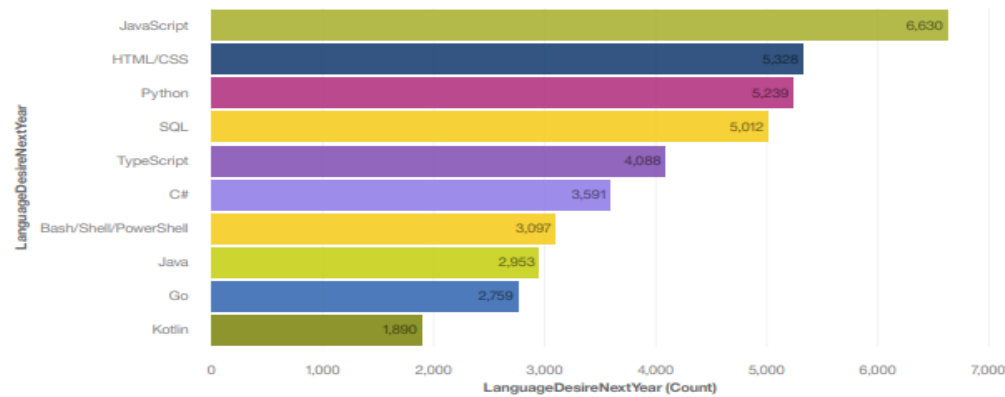


Top 10 WebFrames

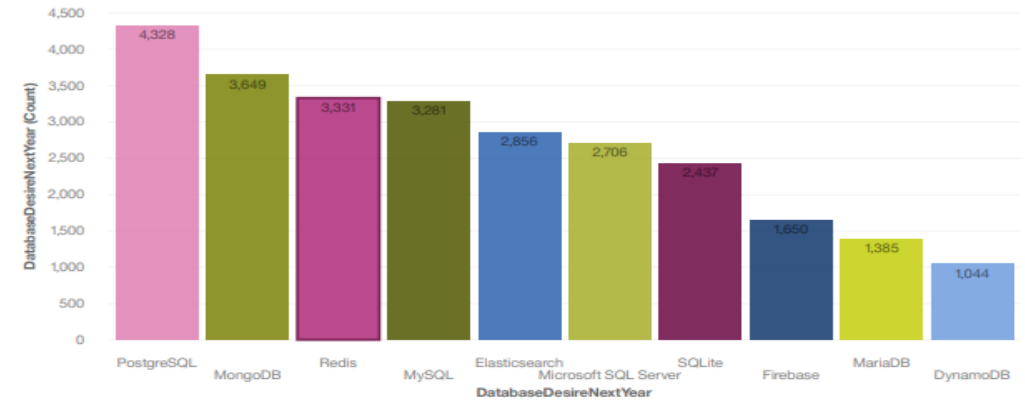


DASHBOARD TAB 2

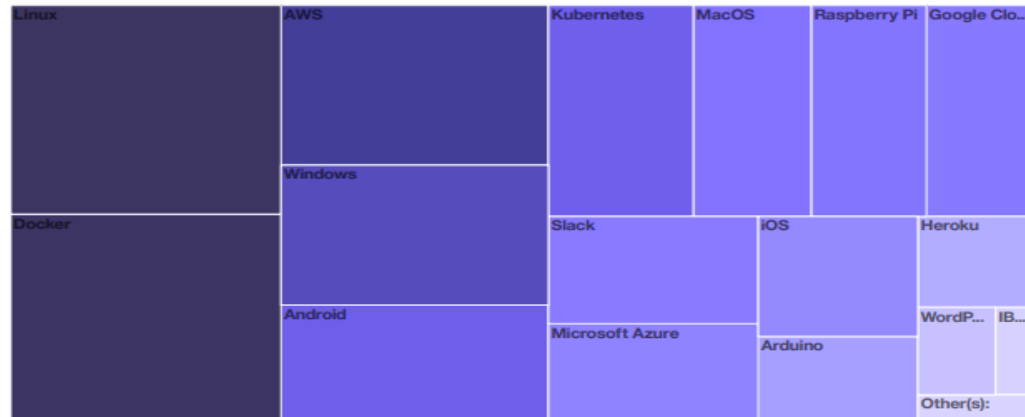
Top 10 Languages



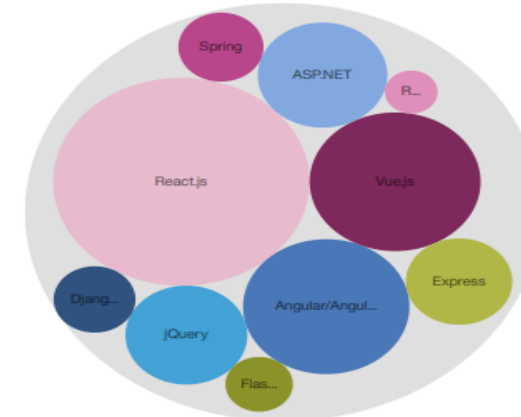
Top 10 Databases



Platforms



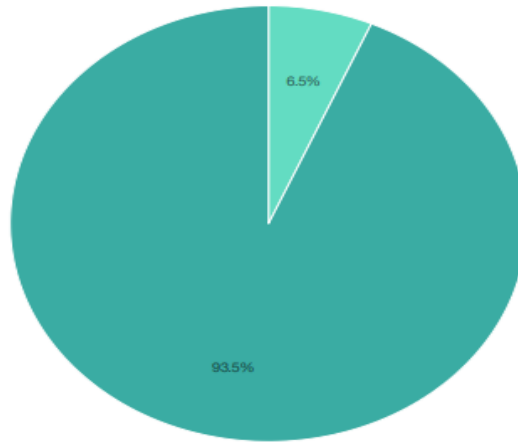
Top 10 WebFrames



DASHBOARD TAB 3

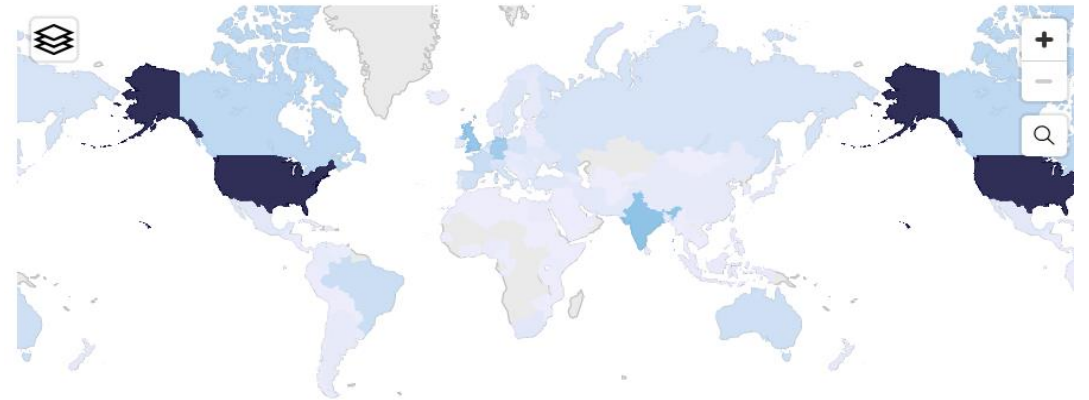
Respondents by Gender

Gender
Woman
Man

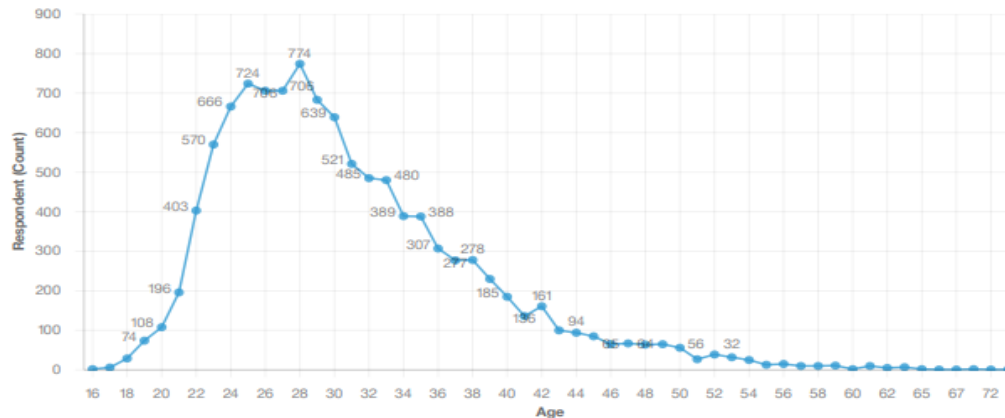


Respondents by Countries

Respondent (Cou...
1 3,058

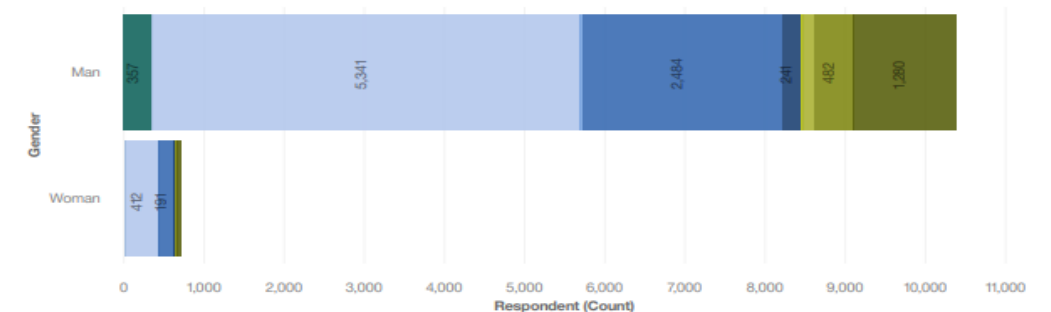


Respondents by Age



Respondents by Gender, classified by Education level

EdLevel
Associate degree
Bachelor's degree (BA, BS, B.E...
Master's degree (MA, MS, M.En...
Professional degree (JD, MD, et...
I never completed any formal e...
Other doctoral degree (Ph.D, E...
Primary/elementary school
Secondary school (e.g. Americ...
Some college/university study ...



DISCUSSION



- Tech Horizons: Where Innovation and Tomorrow Converge
- Breaking Barriers: The Mosaic of Gender in Tech
- Degrees vs. Skills: The Shifting Paradigm of Tech Proficiency

OVERALL FINDINGS & IMPLICATIONS

Findings

- Tech trends are constantly changing
- Extreme age and gender disproportion
- Code Conclaves are presented by: USA, Canada, Australia, UK, India
- Cloud platforms expanding

Implications

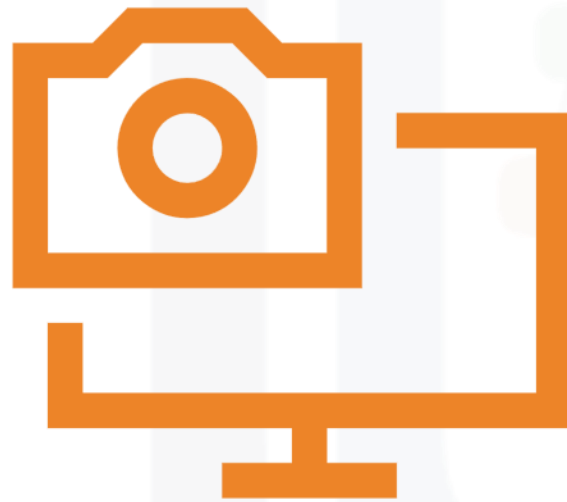
- Developers have to maintain their skills and be on the edge of tech trends
- More countries should provide options and privileges for IT specialists
- In the Now: Cloud Services and AI Take the Lead

CONCLUSION



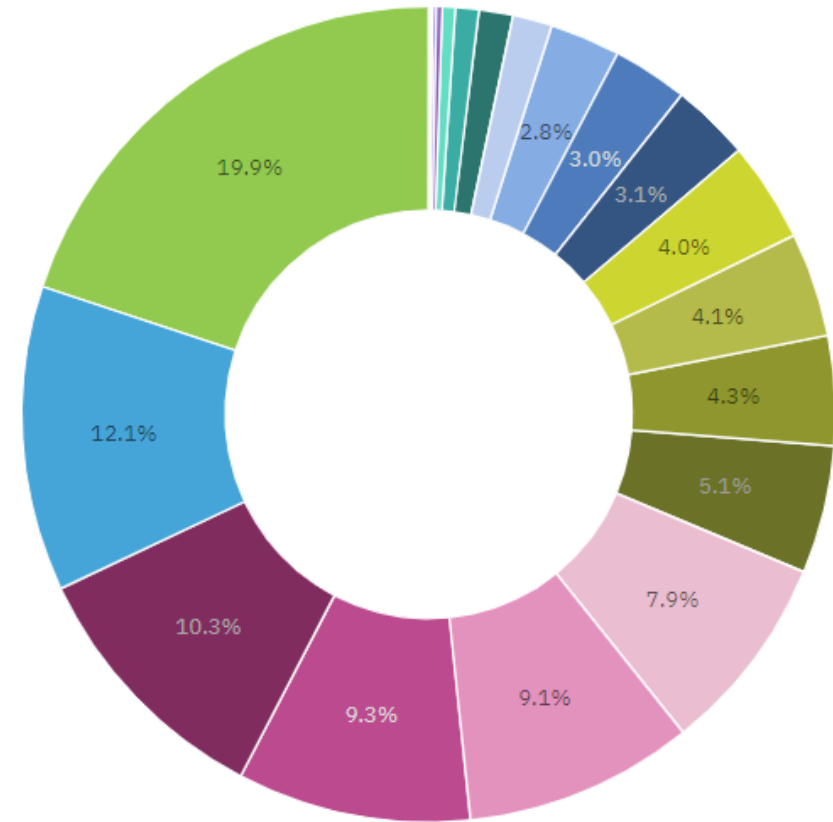
- **Dynamic Tech Landscape**
- **Diversity Challenges**
- **Global Code Capitals**
- **Cloud Dominance**
- **In the Now: Cloud and AI Leadership**
- **Global Accessibility**

APPENDIX

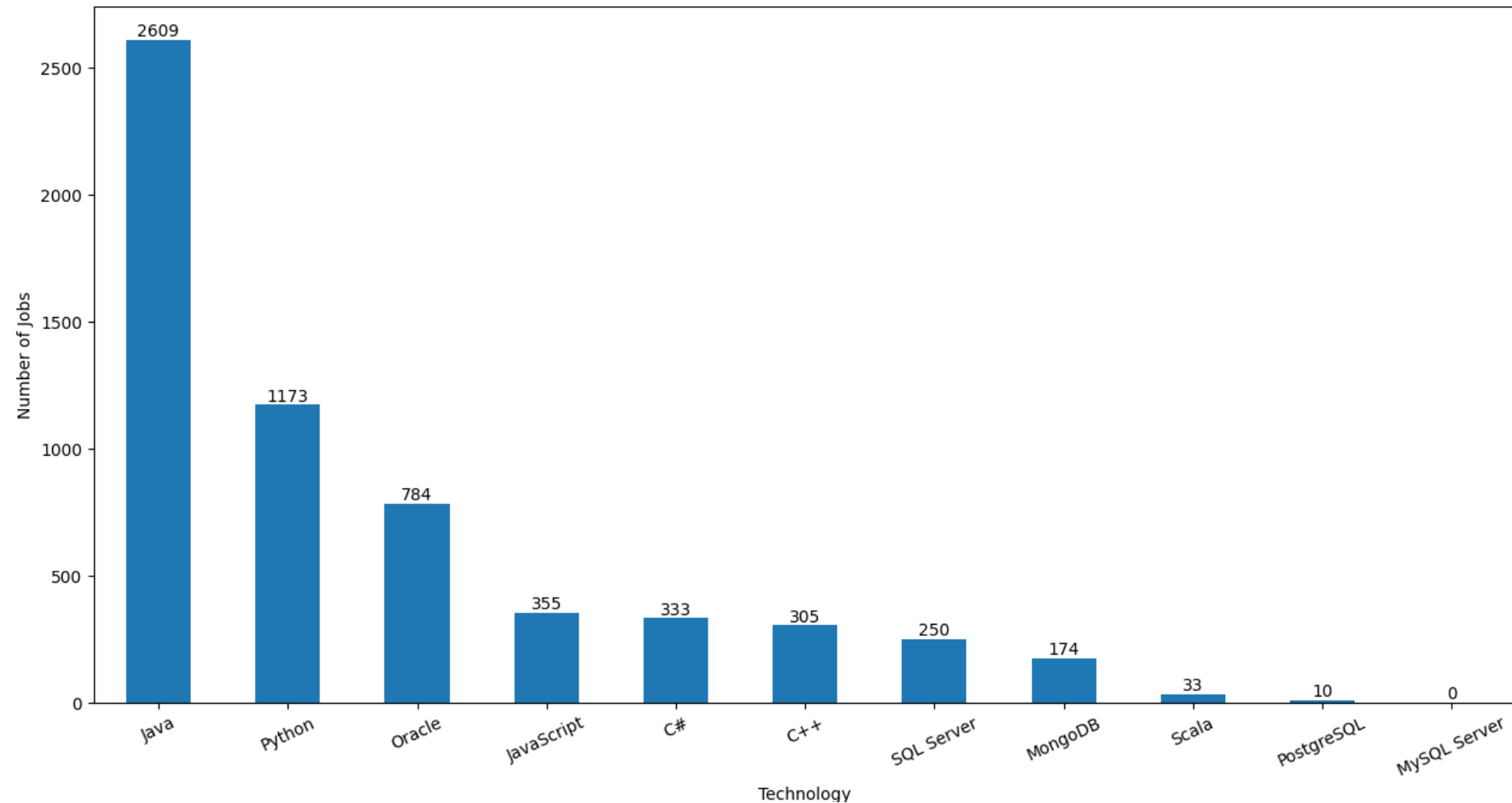


DevEnviron

- Light Table
- Zend
- Komodo
- Coda
- TextMate
- RubyMine
- RStudio
- Emacs
- NetBeans
- PHPStorm
- IPython / Jupyter
- Xcode
- Atom
- Eclipse
- PyCharm
- Android Studio
- Sublime Text
- Vim
- IntelliJ
- Notepad++
- Visual Studio
- Visual Studio Code



JOB POSTINGS



POPULAR LANGUAGES

