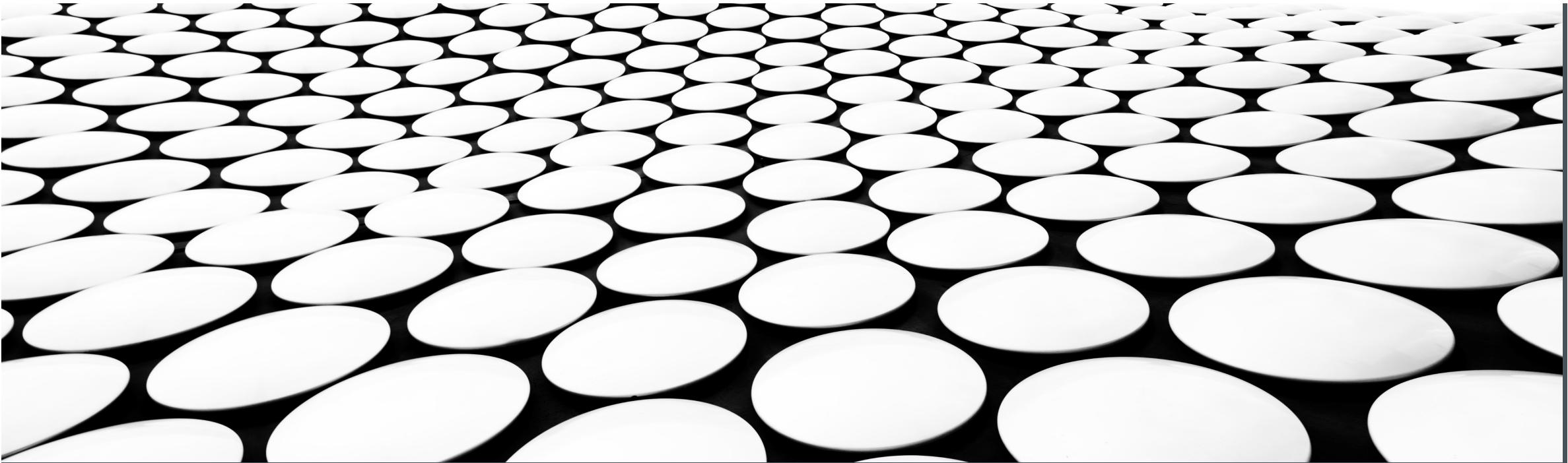
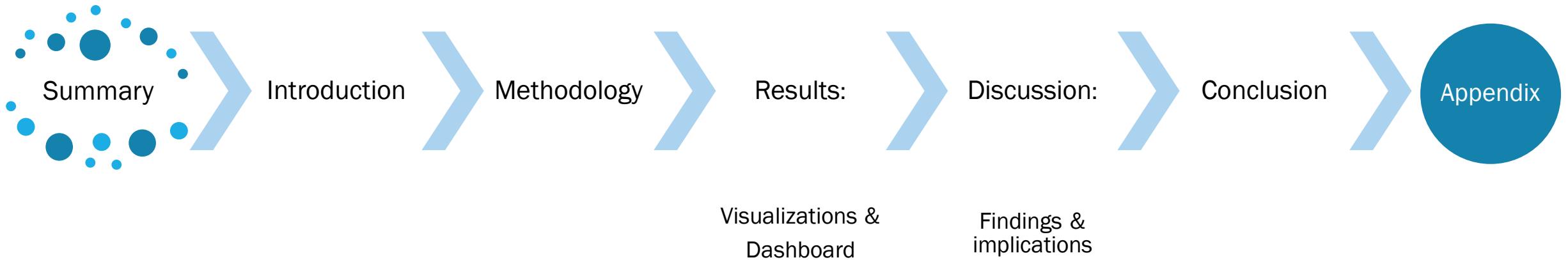

THE FUTURE SYNTAX: TRENDS REDEFINING PROGRAMMING LANGUAGES

Gabriel Burlacu

March 2024

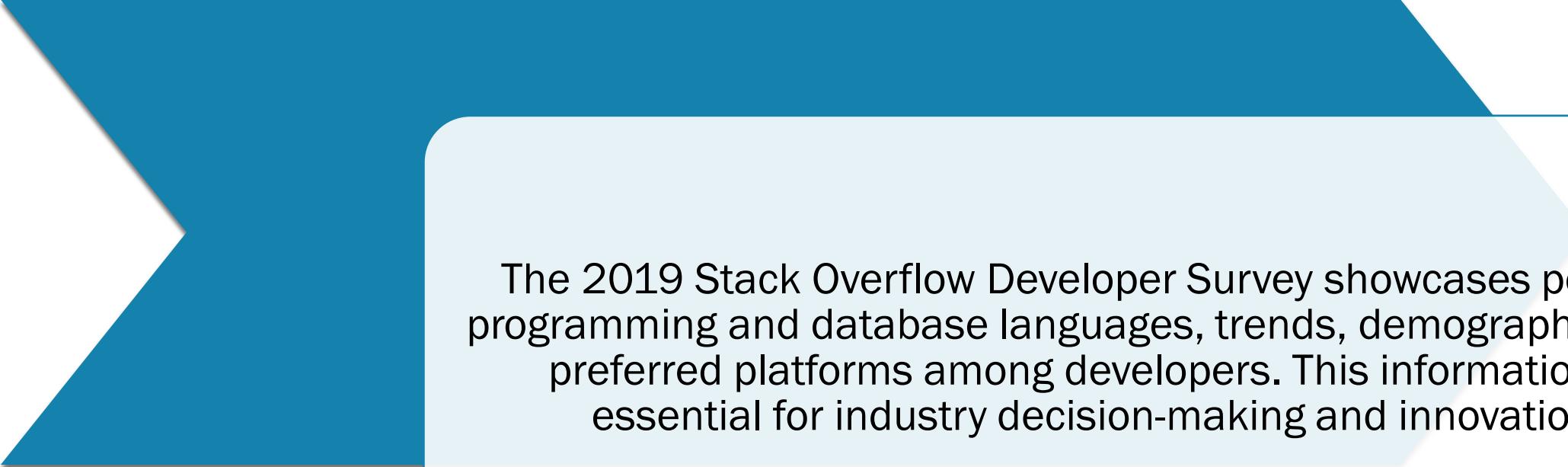


OUTLINE

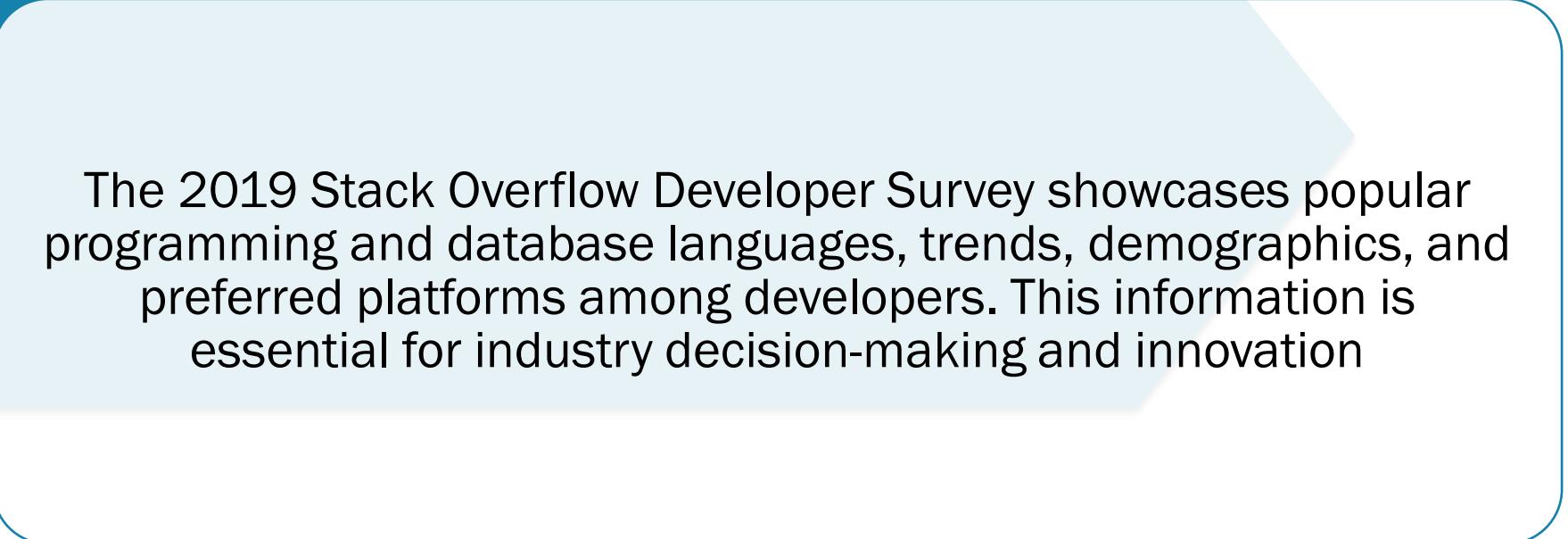




SUMMARY



The 2019 Stack Overflow Developer Survey showcases popular programming and database languages, trends, demographics, and preferred platforms among developers. This information is essential for industry decision-making and innovation.



INTRODUCTION

The Stack Overflow Developer Survey serves as a comprehensive resource, offering insights into developers preferences and behaviors

Key areas covered include the most popular programming languages, database languages, current trends, demographics, preferred platforms, and anticipated future skills

This presentation will explore the 2019 survey findings, providing a snapshot of the global developer community and its implications for the future of software development

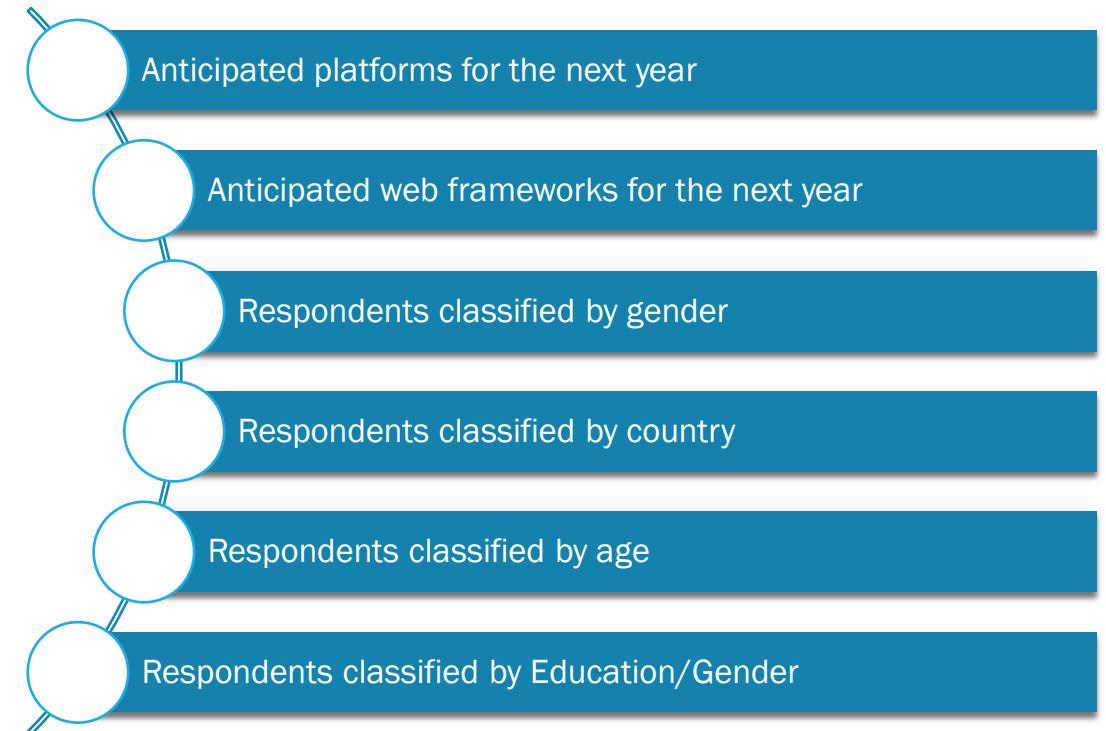
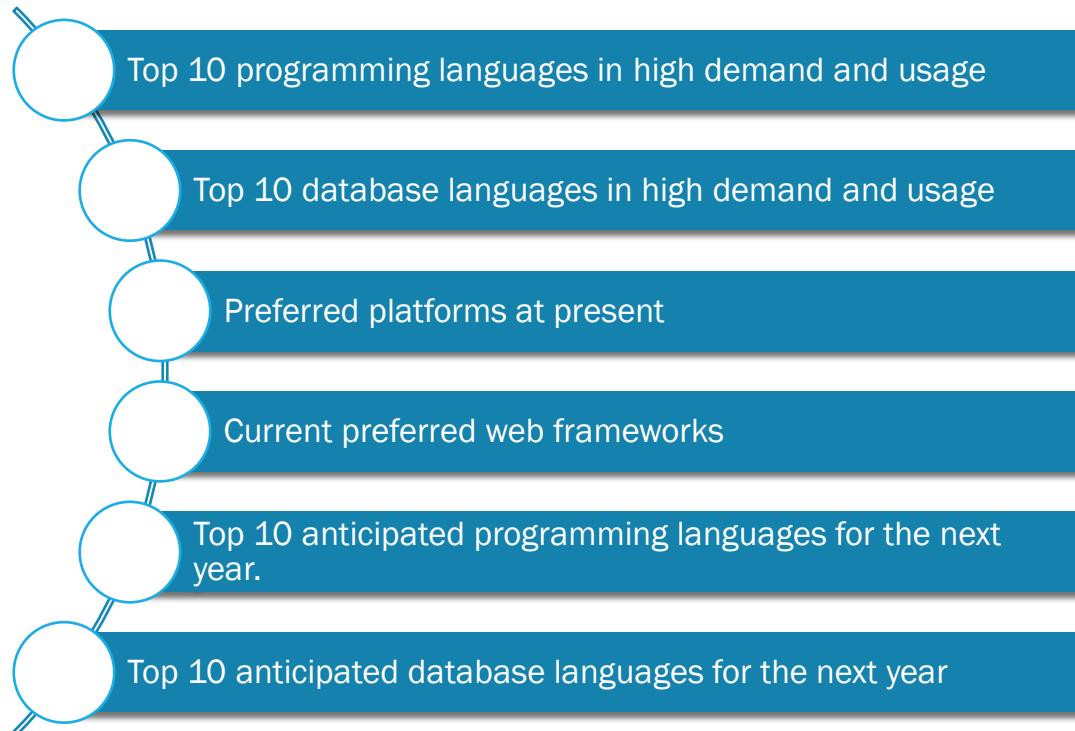
METHODOLOGY

Data Collection: Utilized the Stack Overflow Developer Survey 2019. Survey conducted online, gathering responses from developers globally. Data obtained in structured formats like CSV files

Data Wrangling: Cleaned data by addressing missing values, duplicates, and standardizing formats. Selected relevant columns for analysis based on research objectives. Applied data transformation techniques as necessary

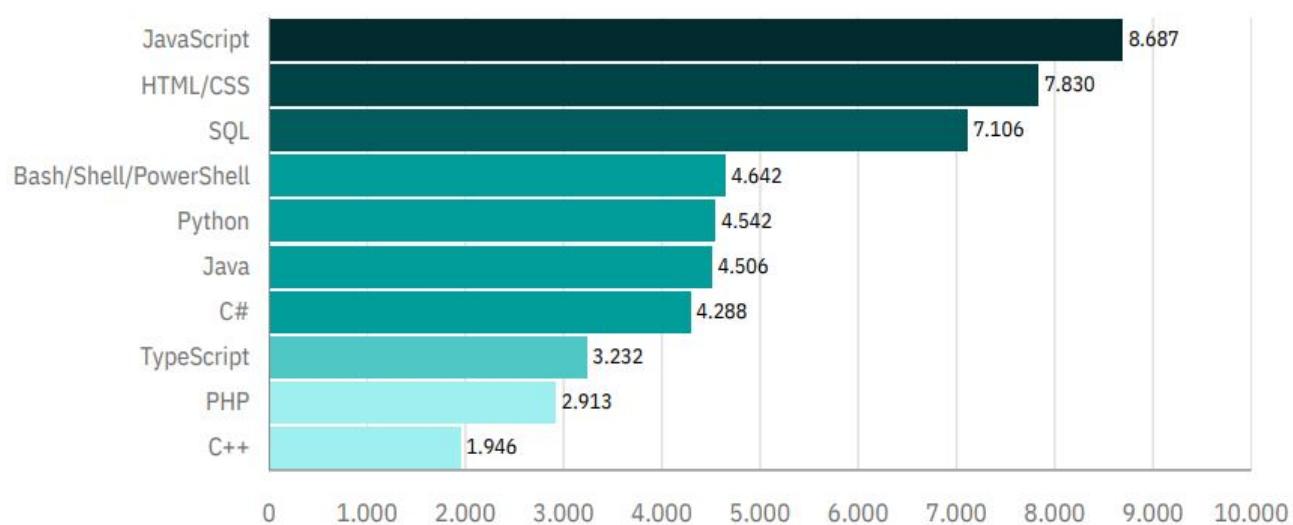
Data Visualization: Created visualizations using libraries like Matplotlib, Seaborn, and Cognos. Employed various charts and graphs to present findings clearly. Selected visualization techniques based on data nature and research questions. This methodology enabled effective collection, cleaning, and visualization of data

RESULTS

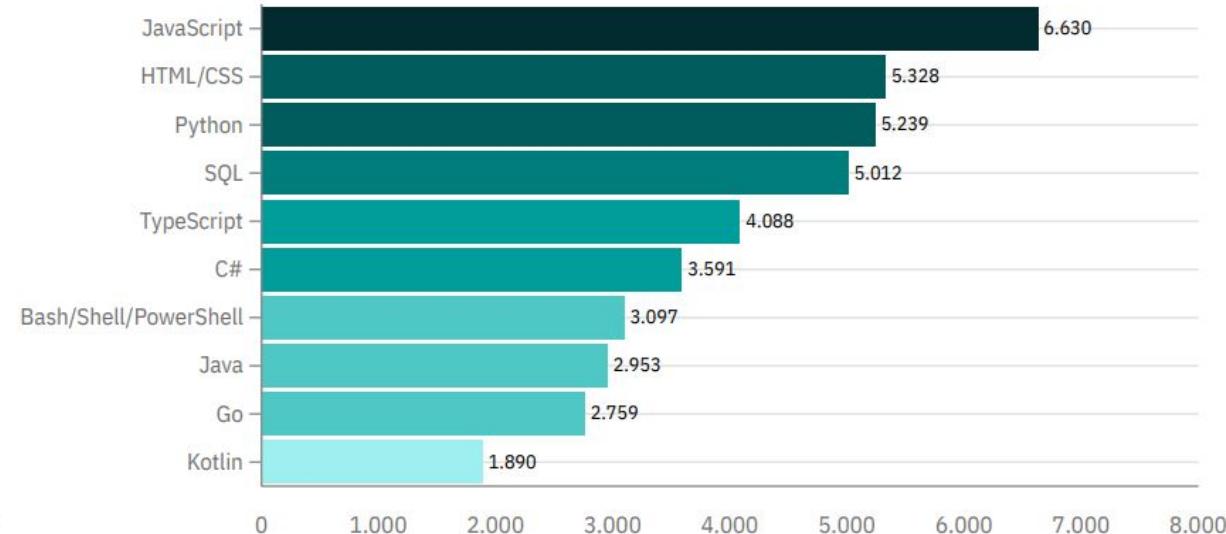


PROGRAMMING LANGUAGE TREND

Top 10 programming languages currently in high demand and usage.



10 programming languages anticipated for the next year.



PROGRAMMING LANGUAGE TRENDS, FINDINGS & IMPLICATIONS

Findings:

Javascript, HTML/CSS are the most used and anticipated languages

SQL, as a database language, remains and will continue to be one of the most essential skills

Interest in Python and TypeScript is soaring, while the future of C++, PHP, C#, and Bash appears to be in decline

Implications:

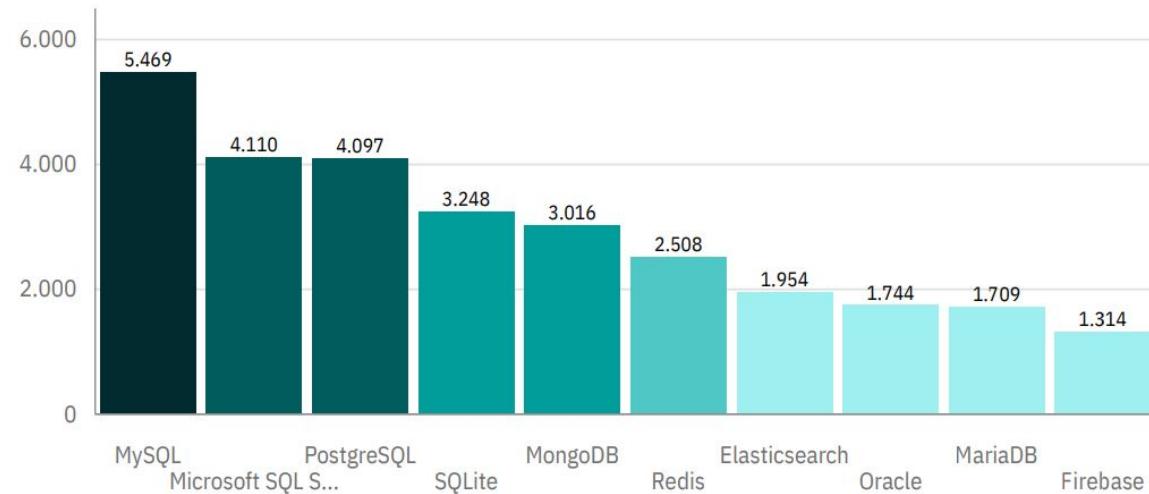
Web development languages continue to dominate and are expected to maintain their prominence

There's a potential trend of JavaScript users migrating towards TypeScript

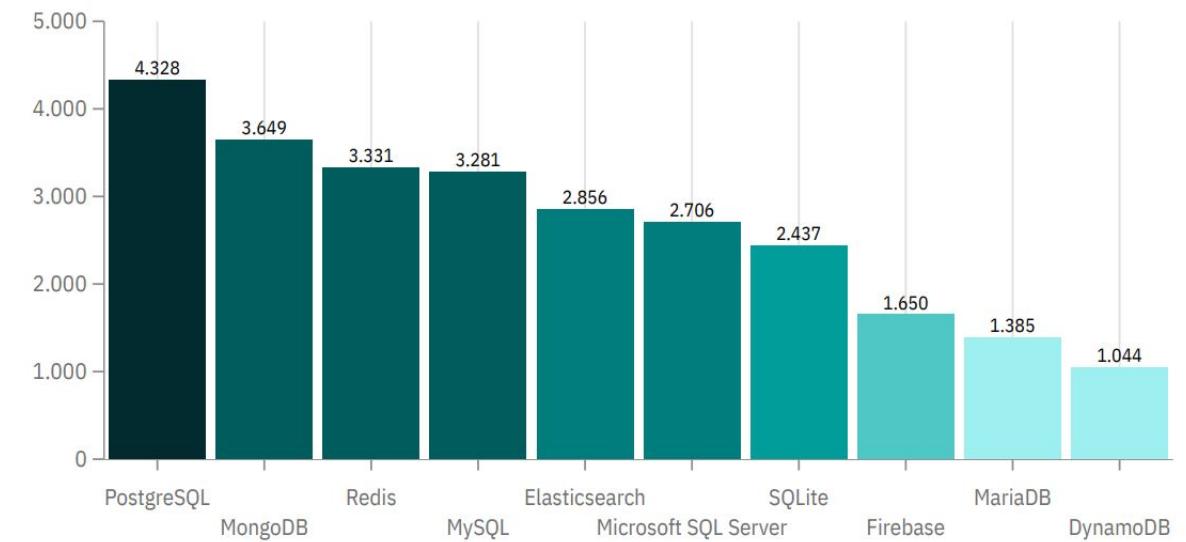
Python is rapidly emerging as one of the most critical languages in the programming landscape

DATABASE TRENDS

Top 10 database languages currently in high demand and usage.



10 database languages anticipated for the next year.



DATABASE TRENDS, FINDING & IMPLICATIONS

Findings

SQL database software remains the most popular choice among developers, with MySQL being the favored option

Increasing interest in PostgreSQL and MongoDB

Emerging database technologies such as MongoDB, Redis, and Elasticsearch are quickly gaining popularity

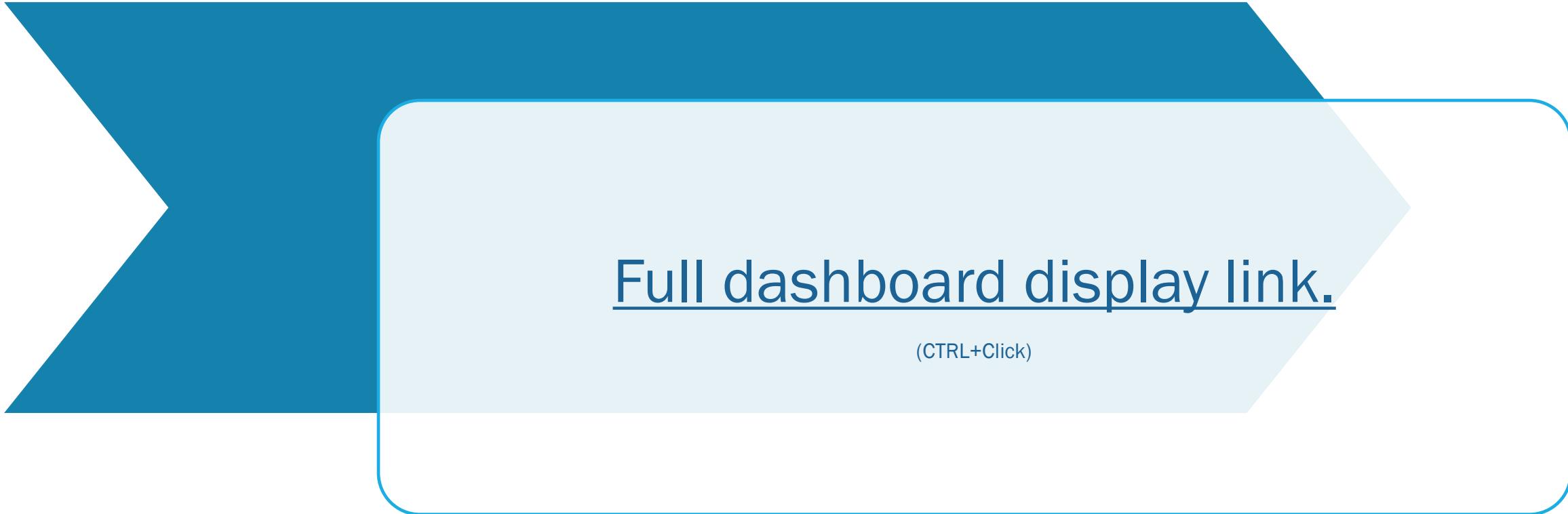
Implications

The traditional dominance of SQL database languages appears to be making room for emerging software solutions

The emerging database languages are predicted to dominate in the near future

PostgreSQL shares similarities with traditional SQL, making it a valuable skill for aspiring data analysts to consider mastering

LINK TO GITHUB DISPLAY DASHBOARD.

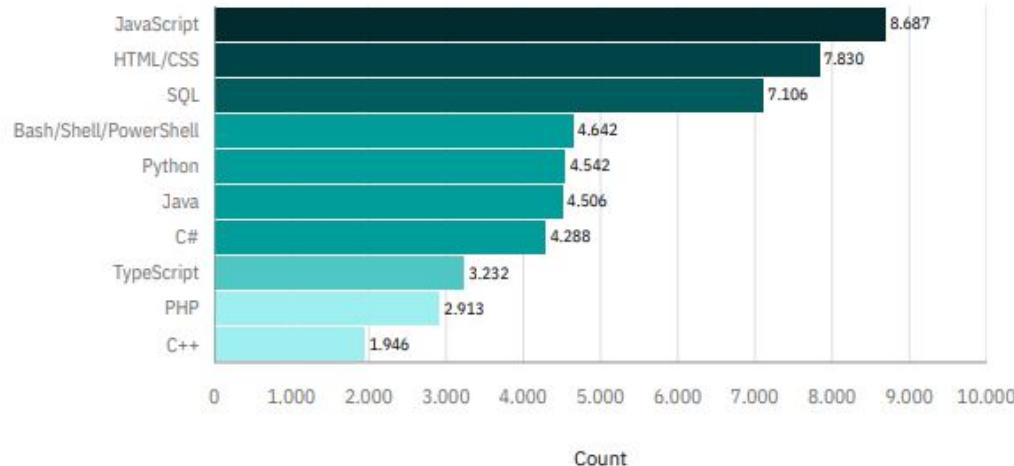


[Full dashboard display link.](#)

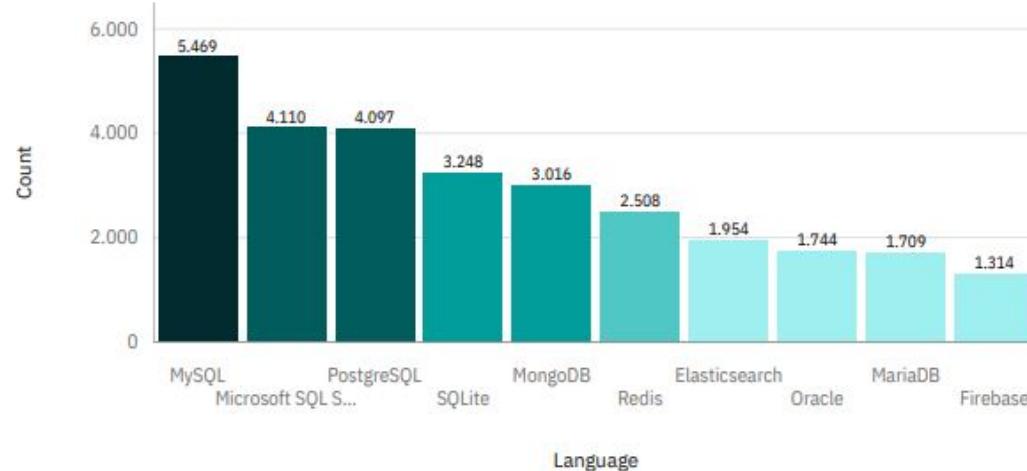
(CTRL+Click)

CURRENT TECHNOLOGY TREND

Top 10 programming languages currently in high demand and usage.



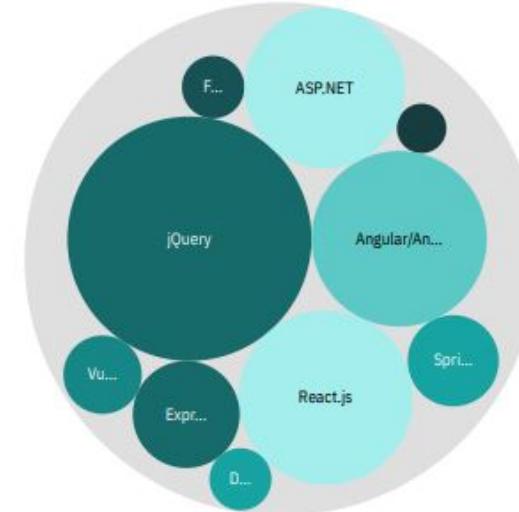
Top 10 database languages currently in high demand and usage.



Current preferred platforms.

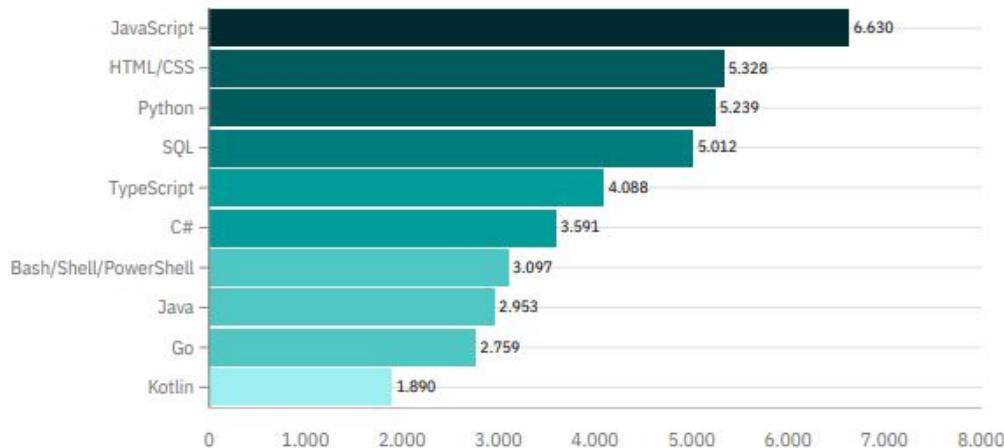


Current preferred web framework software.

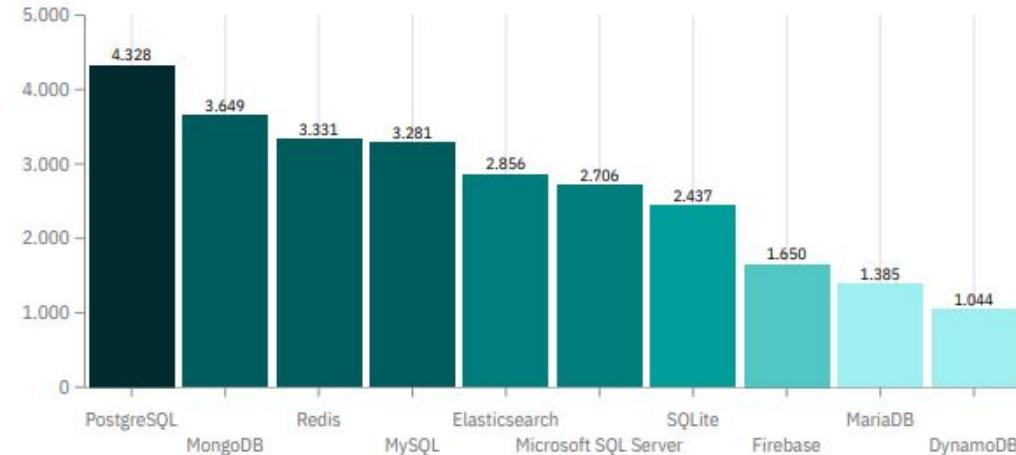


FUTURE TECHNOLOGY TREND

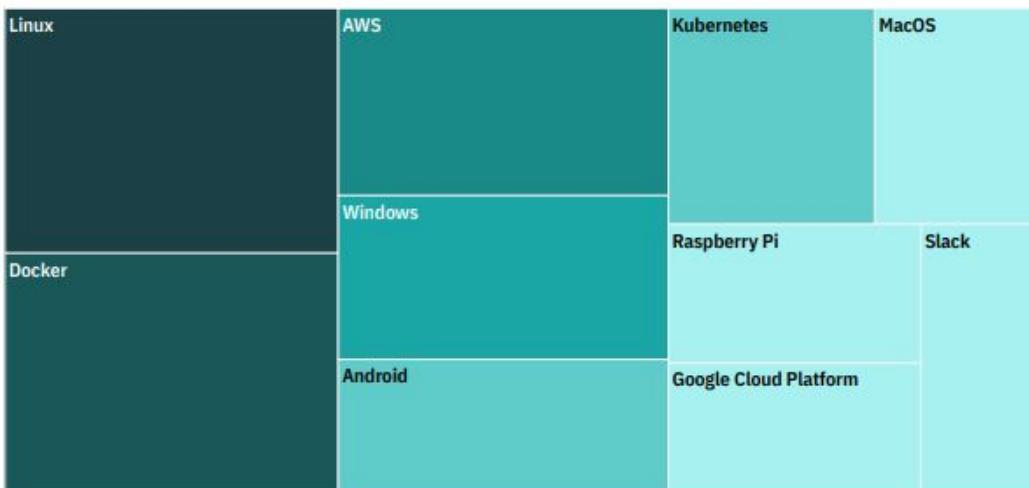
10 programming languages anticipated for the next year.



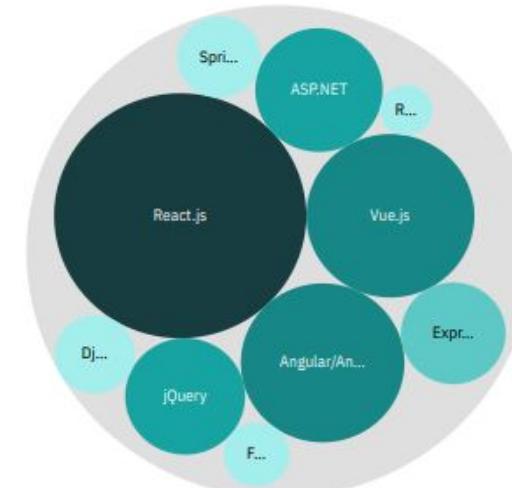
10 database languages anticipated for the next year.



Platform anticipated for the next year.

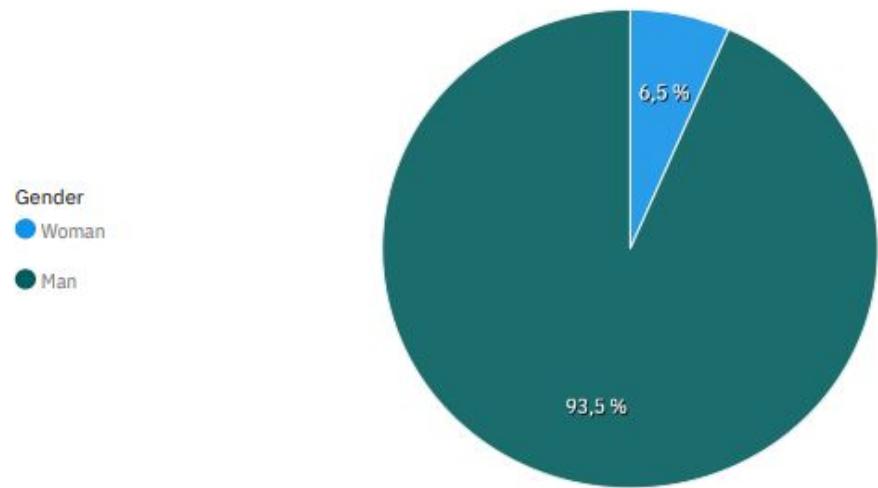


WebFramework anticipated for the next year.

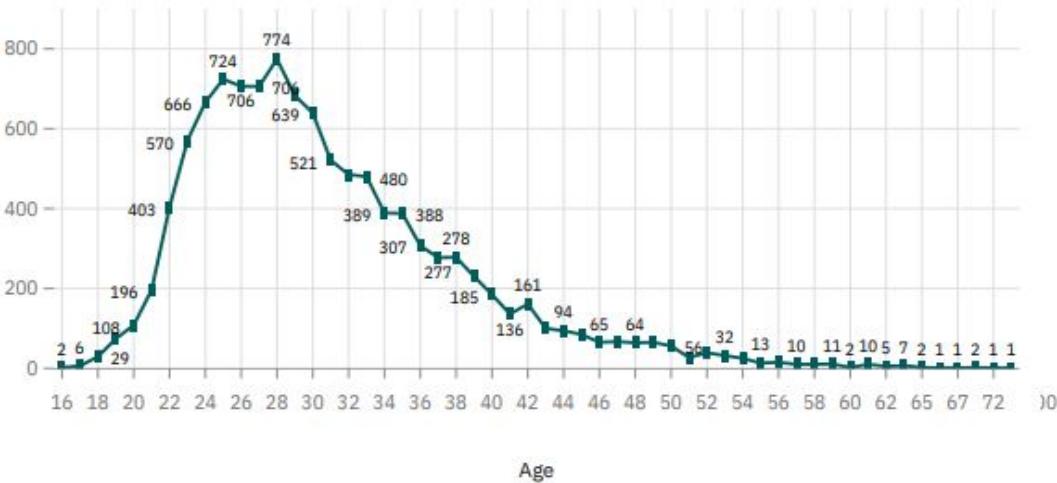


DEMOGRAPHICS

Respondents classified by gender.



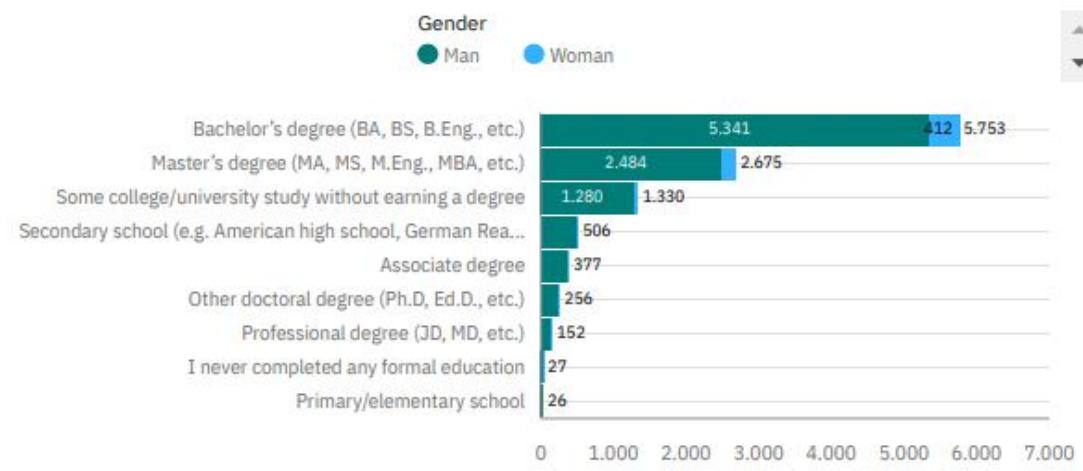
Respondents classified by age.



Respondents classified by country.



Respondents classified by Education/Gender





DISCUSSION

How do we identify and prioritize the technologies that aspiring developers should focus on, considering current trends and industry demand?

What strategies can we implement to bridge the gender gap in the tech industry and promote greater diversity and inclusion?

How can aspiring data analysts effectively prioritize their skill development efforts to align with the evolving demands of the industry, considering both established and emerging technologies?

OVERALL FINDINGS AND IMPLICATIONS

Findings:

Python and TypeScript will become essential due to their versatility and community support

Emerging database languages will dominate for improved performance and scalability

Foundational operating platforms will largely remain unchanged

High concentration of developers in USA and India

Implications:

Web development continues to be in high demand, making it crucial for prospective developers to consider mastering TypeScript alongside JavaScript, HTML, and CSS

In the face of rapid technological advancements, companies must remain adaptable to stay competitive

Educators and organizations have a responsibility to address not only the technological divide between countries but also to minimize the gender gap in the tech industry

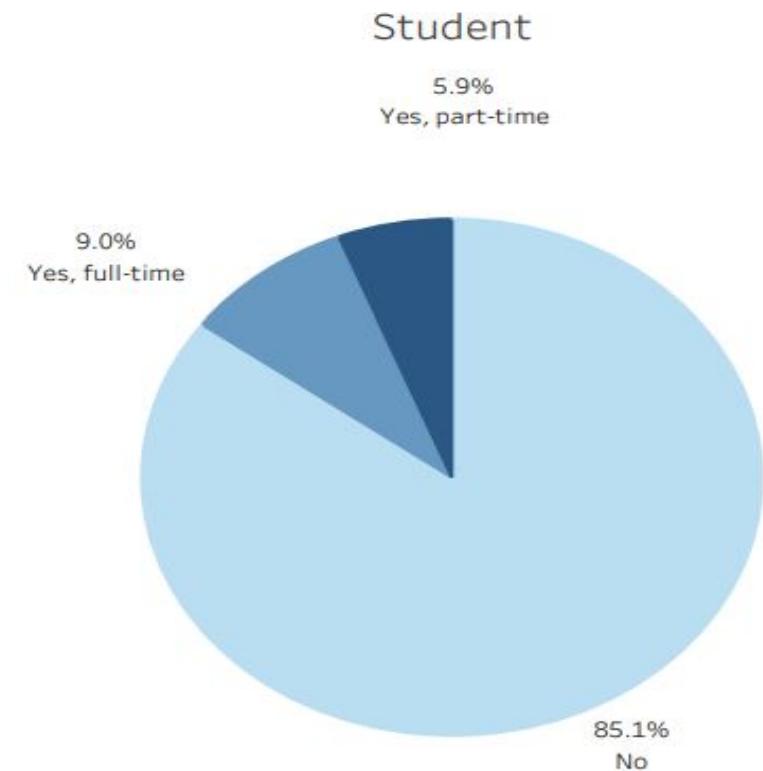
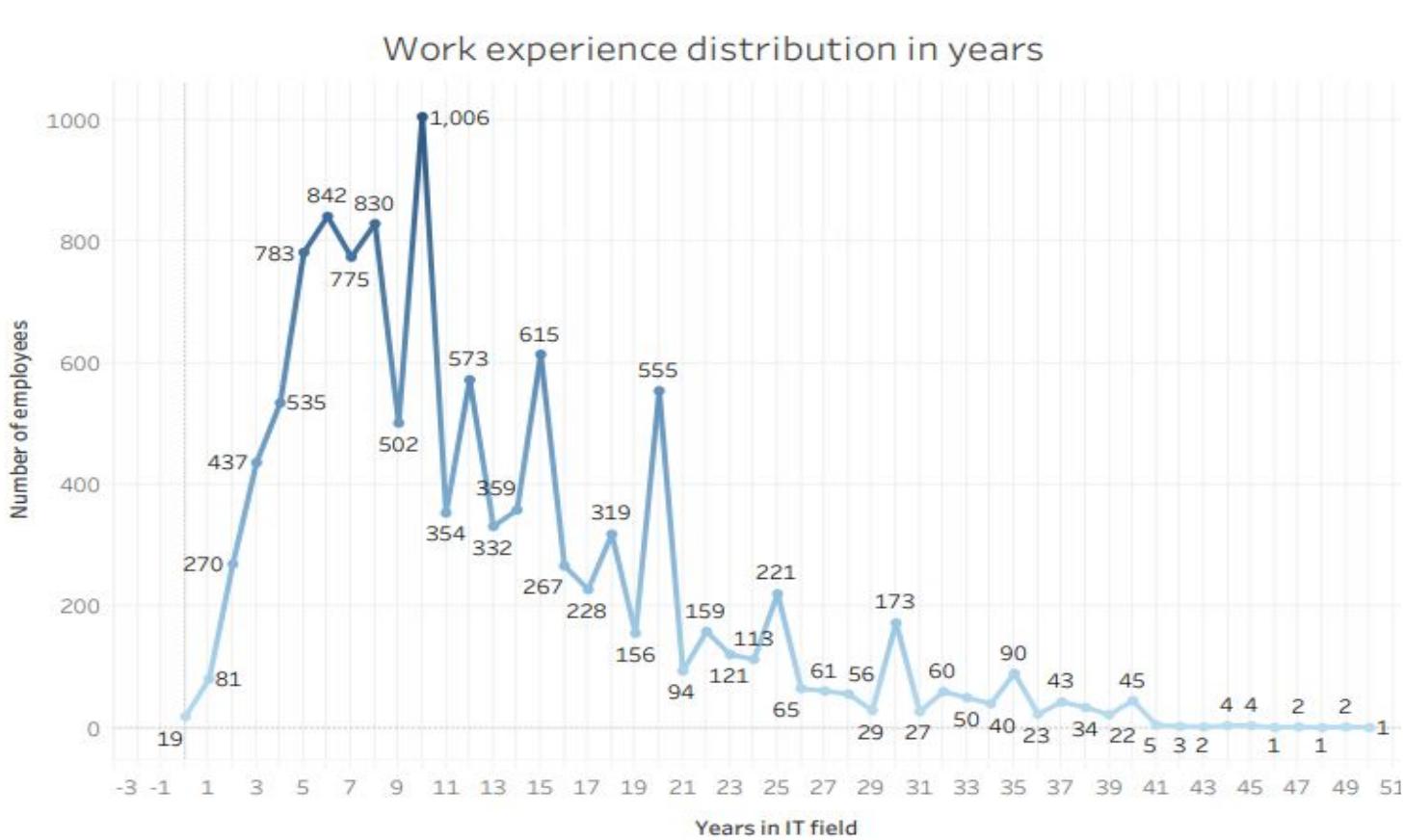
CONCLUSION

To remain relevant in the technology industry, professionals must continually adapt to the rapid evolution of programming and database languages. This necessitates ongoing learning and skill development to stay ahead of emerging trends and advancements

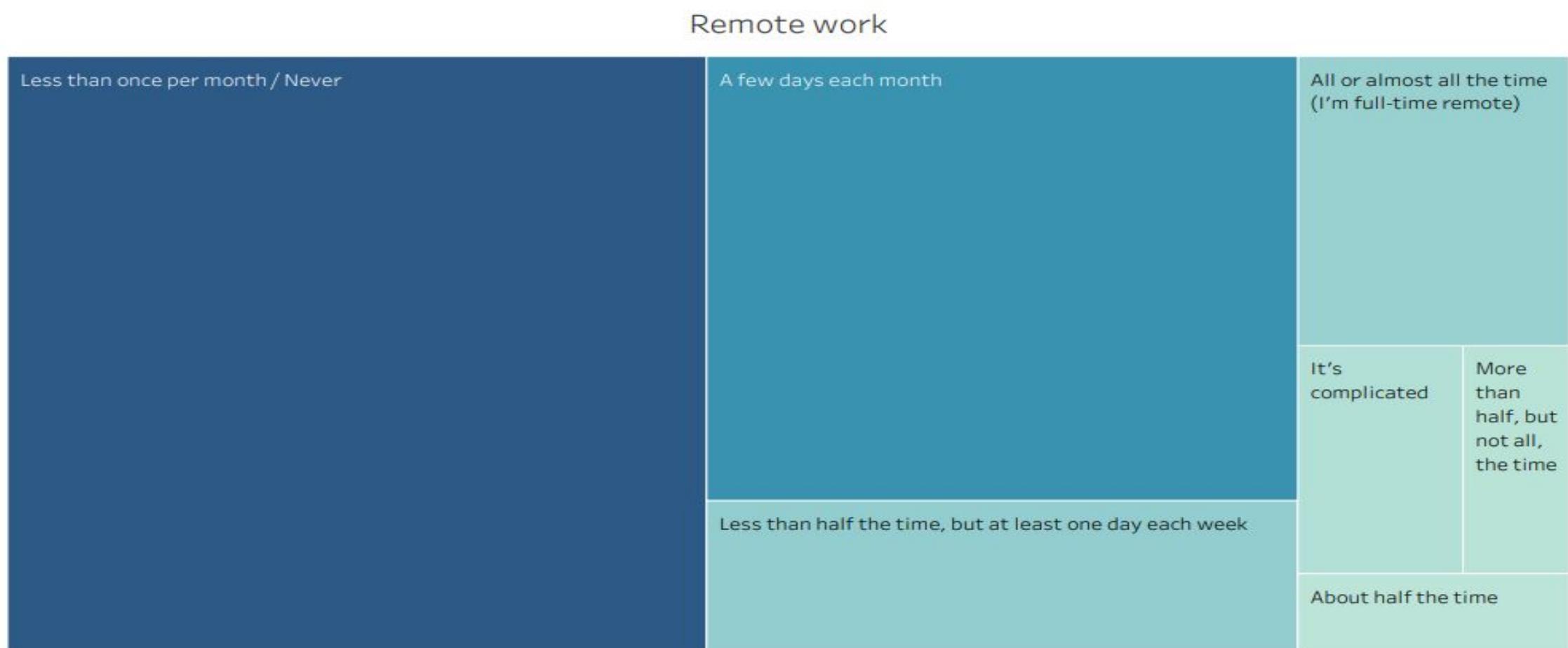
The IT industry continues to be heavily male-dominated, emphasizing the importance of promoting gender diversity and inclusivity initiatives

Interest in programming often begins at a young age, with individuals as young as 16 showing enthusiasm for learning to code

APPENDIX: WORK EXPERIENCE, STUDENT

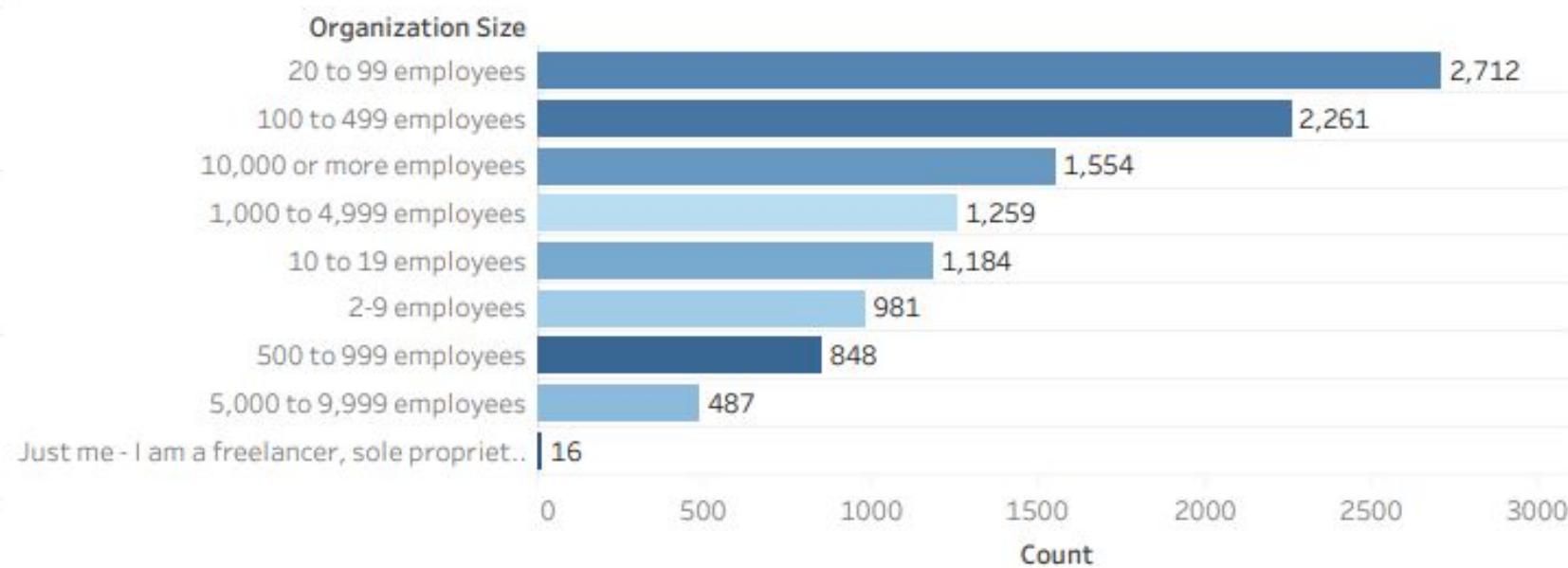


REMOTE WORK



COMPANY SIZE

Organization Size distribution



DASHBOARD

