



IT Technologies Trend Analysis

Chinmay Mhatre

Oct 9th, 2022

OUTLINE



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

EXECUTIVE SUMMARY



- Top Programming Languages
 - JavaScript
 - HTML/CSS
 - Python
- Rising Trend in Non-RDBMS
 - MongoDB
- Skillset required for upcoming years
 - Knowing Big Data and ML
 - Advanced Programming Languages

INTRODUCTION



- Stack Overflow conducted a survey amongst developers worldwide about technological trends in 2019
- In this survey, we found skills in demand for
 - Top Programming Languages
 - Top Databases
- Target Audience
 - IT Professionals
 - People interested in IT fields
- Overview
 - Skillset required for jobs
 - Types of Jobs

METHODOLOGY



- Data Sources
 - Stack Overflow Developers Survey 2019
 - Github Job Postings
 - Programming Language Annual Salary
- Data Exploring and Cleaning
 - Python
- Data Visualization
 - IBM Cognos Analytics



RESULTS

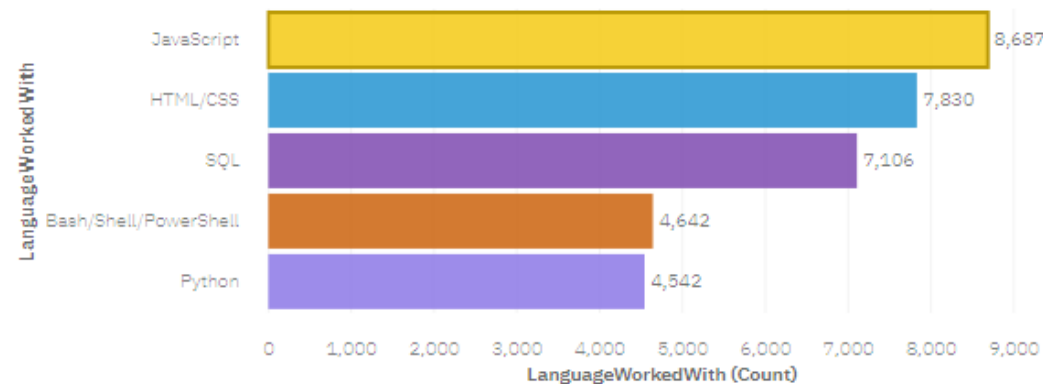
PROGRAMMING LANGUAGE TRENDS

Current Year

Top 5 Languages Worked with

LanguageWorkedWith

● Bash/Shell/PowerShell ● HTML/CSS ● JavaScript ● Python ● SQL

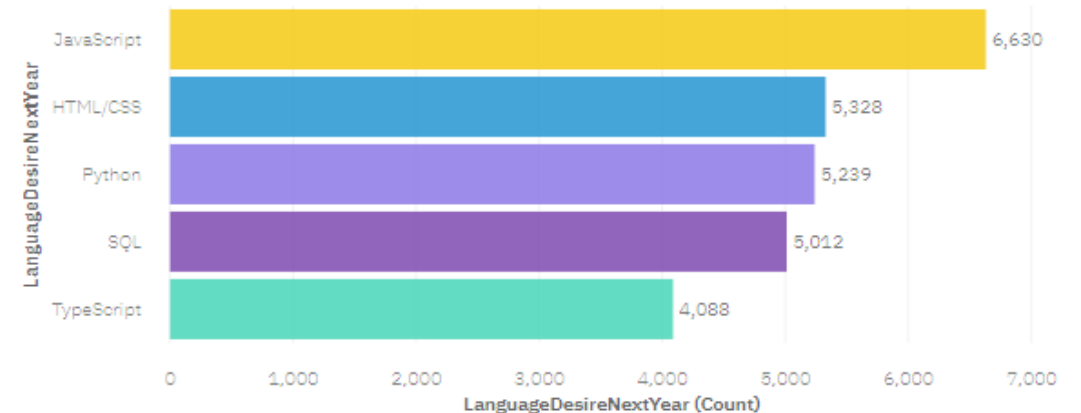


Next Year

Top 5 Language Desire Next Year

LanguageDesireNextYear

● HTML/CSS ● JavaScript ● Python ● SQL ● TypeScript



PROGRAMMING LANGUAGE TRENDS - FINDINGS & IMPLICATIONS

Findings

- Most Popular Language current and future - Javascript
- Second most Popular Language - HTML/CSS
- Rising trend from current year to next year - Python

Implications

- JavaScript and HTML/CSS have most demand near future
- Python is the next demand in focus

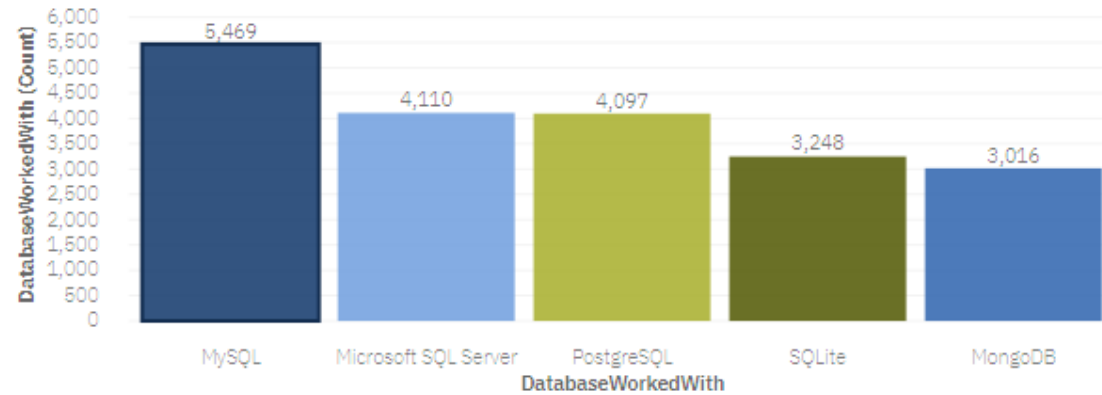
DATABASE TRENDS

Current Year

Top 5 Databases Worked with

DatabaseWorkedWith

Microsoft SQL Server MongoDB MySQL PostgreSQL SQLite

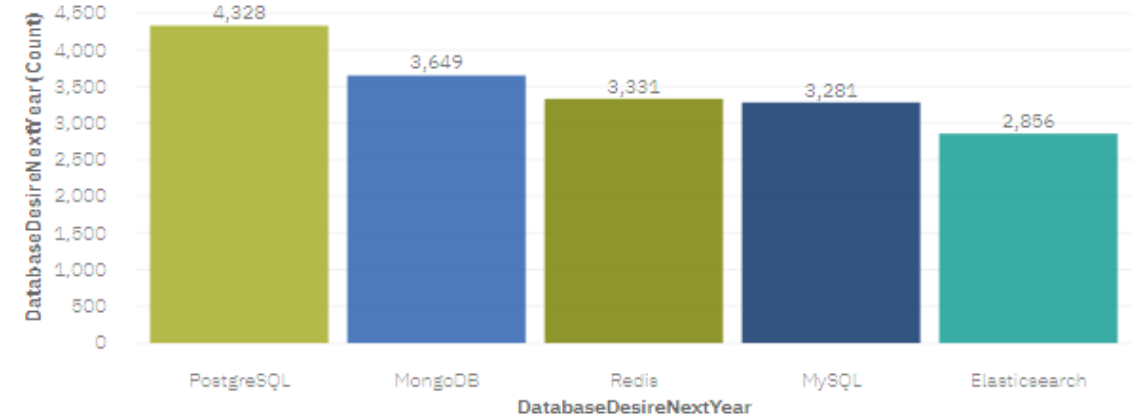


Next Year

Top 5 Database Desire Next Year

DatabaseDesireNextYear

Elasticsearch MongoDB MySQL PostgreSQL Redis



DATABASE TRENDS - FINDINGS & IMPLICATIONS

Findings

- In Current Year, RDBMS (like, MySQL, Microsoft SQL Server, etc) are dominant
- Future trend suggests the rise in NON RDBMS (MongoDB)

Implications

- Interest in learning NON RDBMS
- NON RDBMS essential for operating big data near future

DASHBOARD

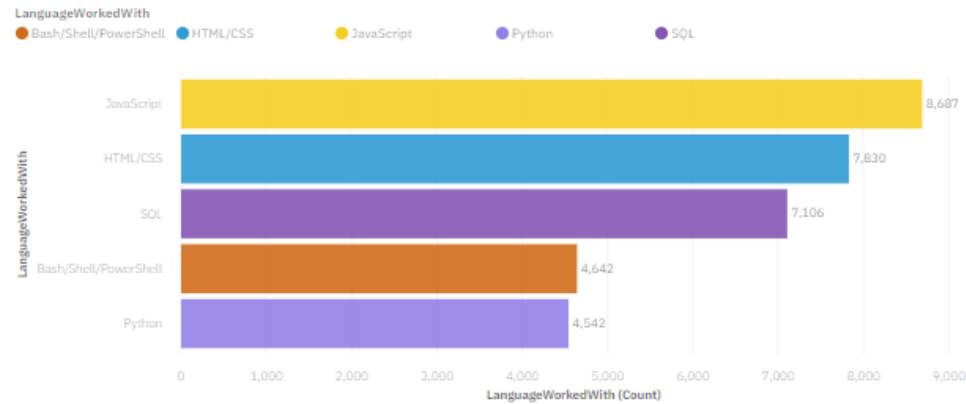


<https://eu-gb.dataplatform.cloud.ibm.com/dashboards/ed8b32d4-d6d0-44b8-a738-c3385ffcbf99/view/4126a33d2e833be140eff6e407982a077c31710ee1bb8b0589807b495b632597f06b11c5c8794a0cdf455060a1eb430b9f>

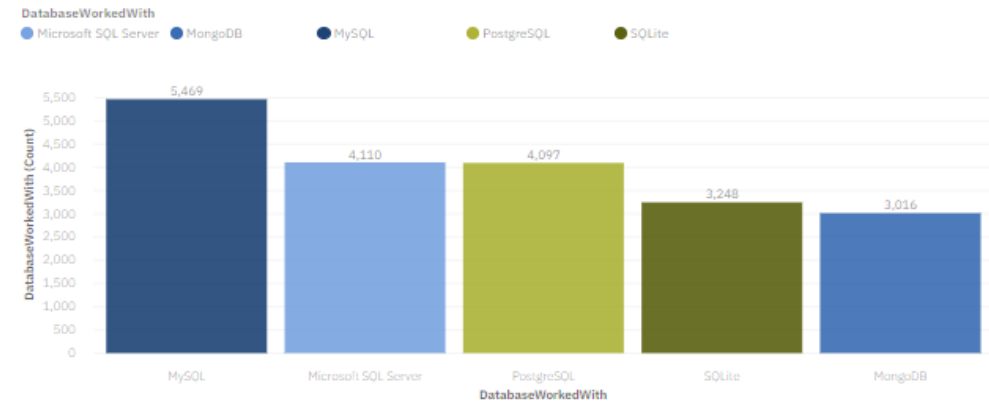
DASHBOARD TAB 1

Current Technology Usage Future Technology Trend Demographics +

Top 5 Languages Worked with



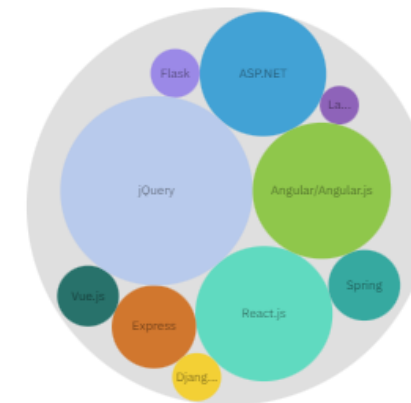
Top 5 Databases Worked with



Platforms Worked with



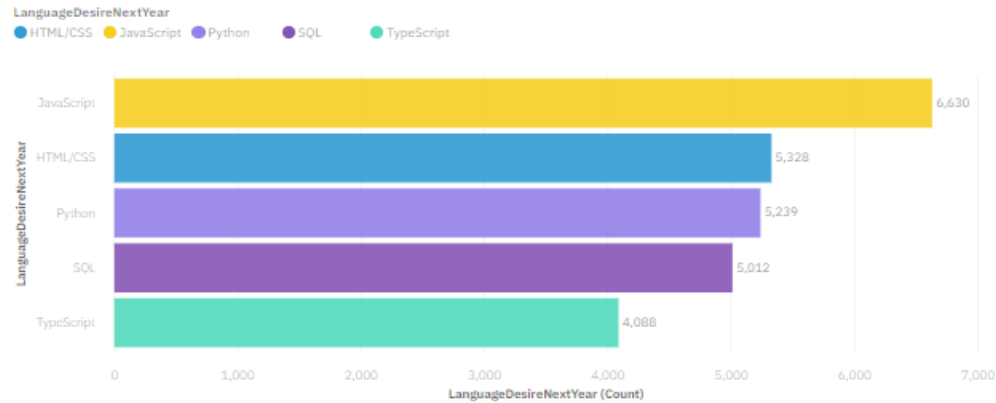
Top 10 Webframes Worked with



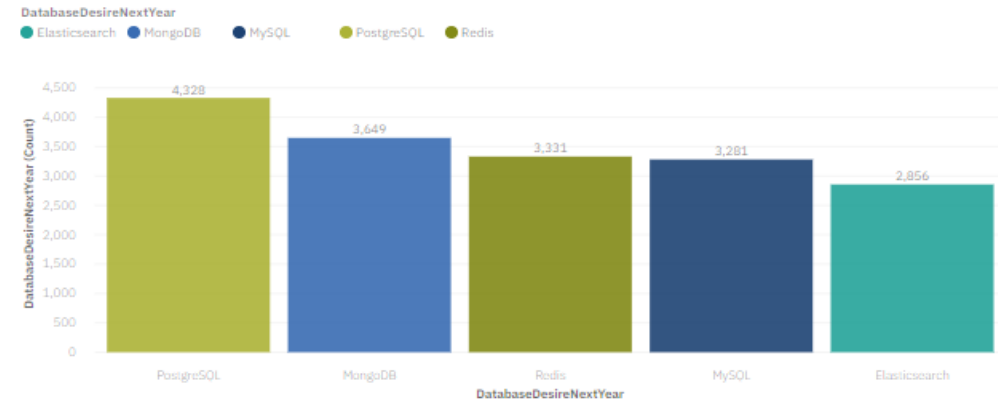
DASHBOARD TAB 2

Current Technology Usage **Future Technology Trend** Demographics +

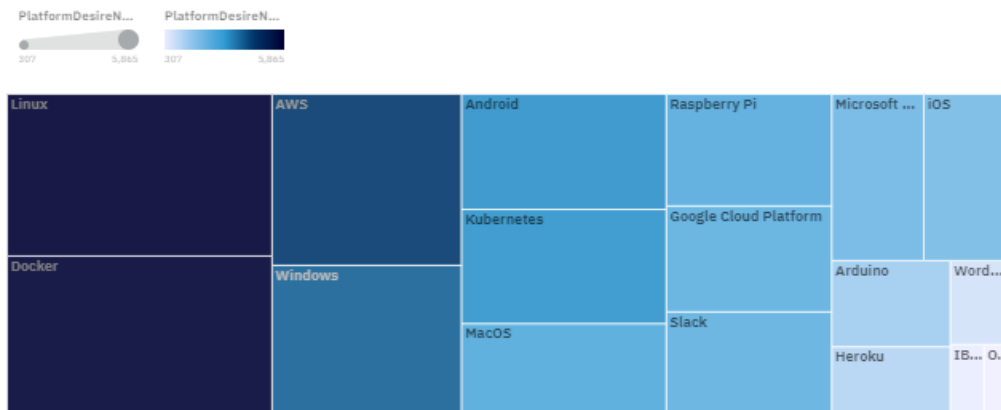
Top 5 Language Desire Next Year



Top 5 Database Desire Next Year



Platform Desire Next Year



Top 10 Webframe Desire Next Year

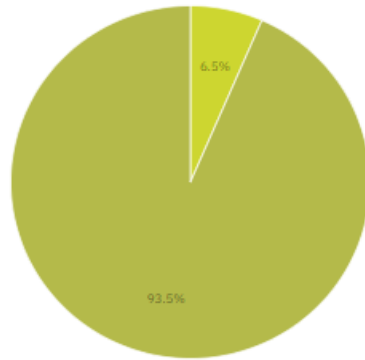


DASHBOARD TAB 3

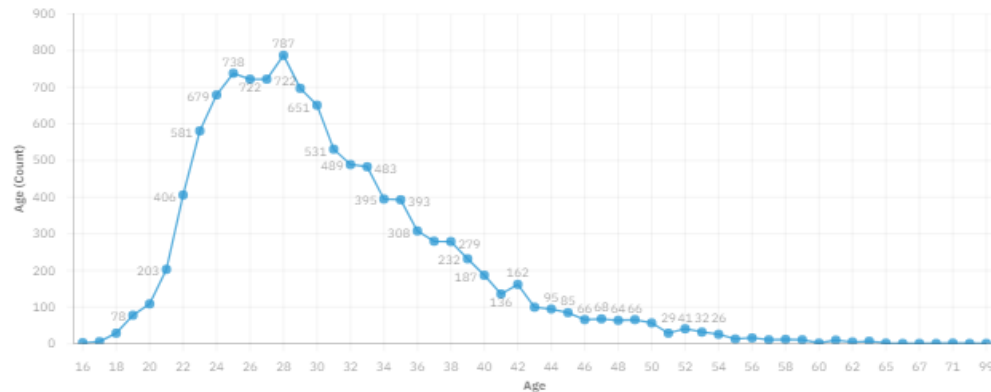
Current Technology Usage Future Technology Trend **Demographics** +

Respondent Count by Gender

Gender
● Woman ● Man

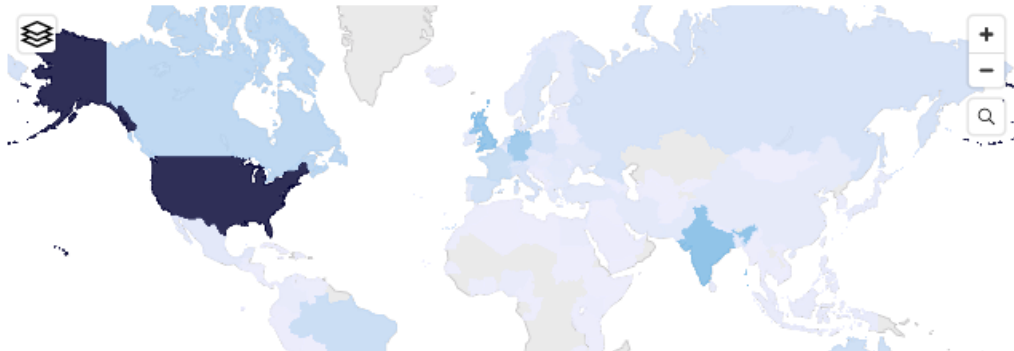


Respondent Count by Age

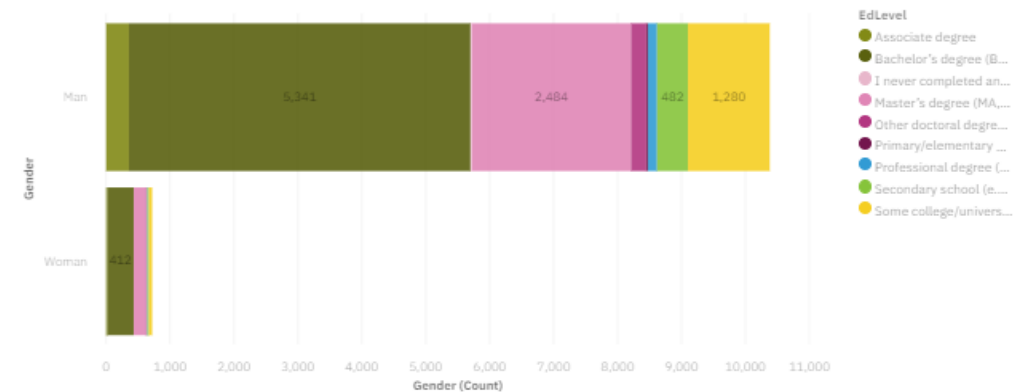


Respondent Count by Country

Country (Count)
1 3,127



Respondent Count by Gender and Formal Education Level



DISCUSSION



- The interest in advanced programming languages were observed
- The future trend in NON RDBMS implies upcoming future for big data

OVERALL FINDINGS & IMPLICATIONS

Findings

- Max Respondents: Male, country (USA)
- Upcoming trend for
 - Advanced programming languages
 - Non-relational Databases

Implications

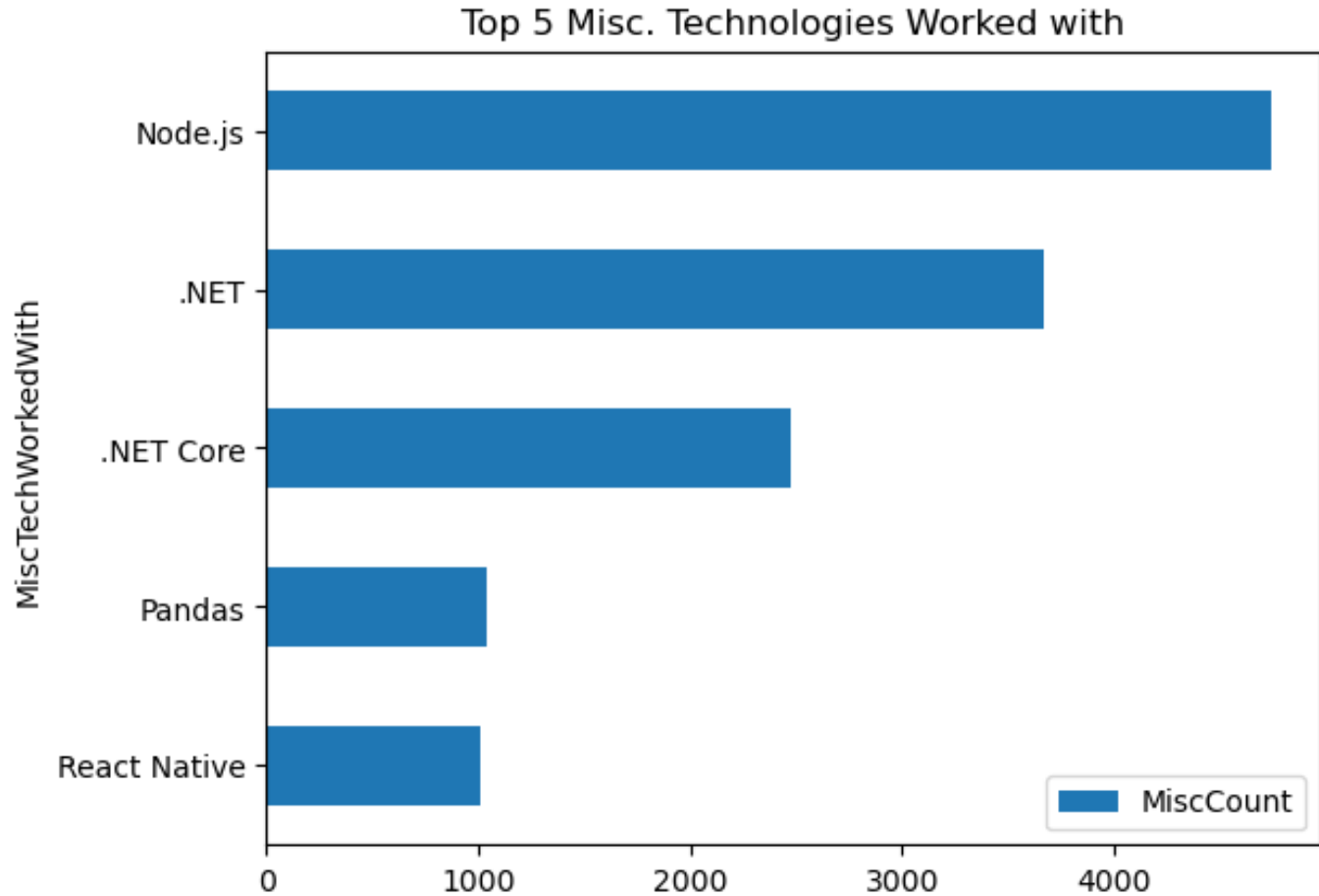
- Gender gap in IT industry
- People are looking for
 - Advanced programming languages
 - Knowing and handling big data

CONCLUSION

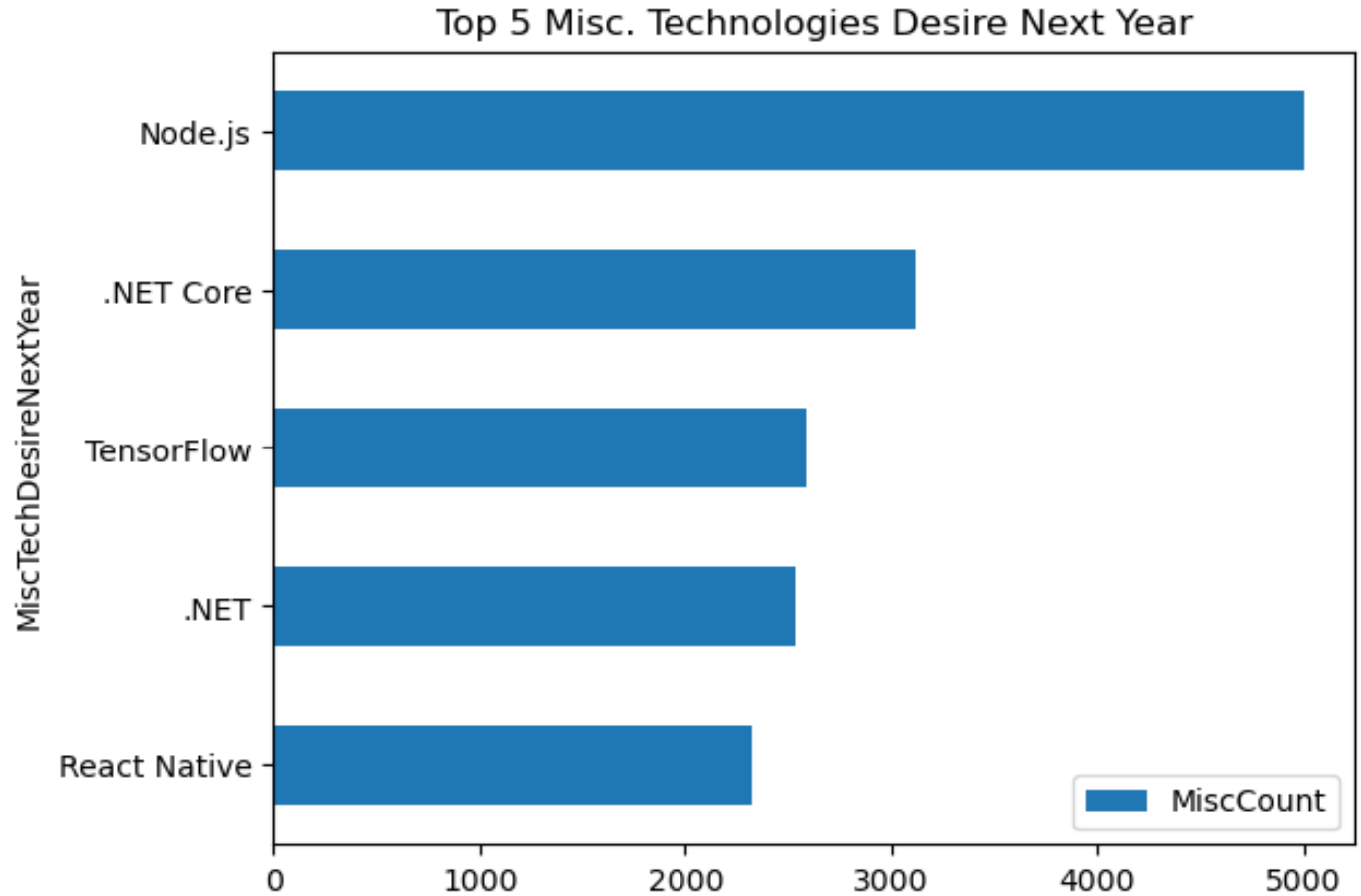


- Top Programming Languages in future
 - JavaScript
 - HTML/CSS
 - Python
- Rising trend in Non RDBMS
- Upcoming future in big data
- Therefore, knowledge of big data is essential along with advanced programming languages

APPENDIX



APPENDIX

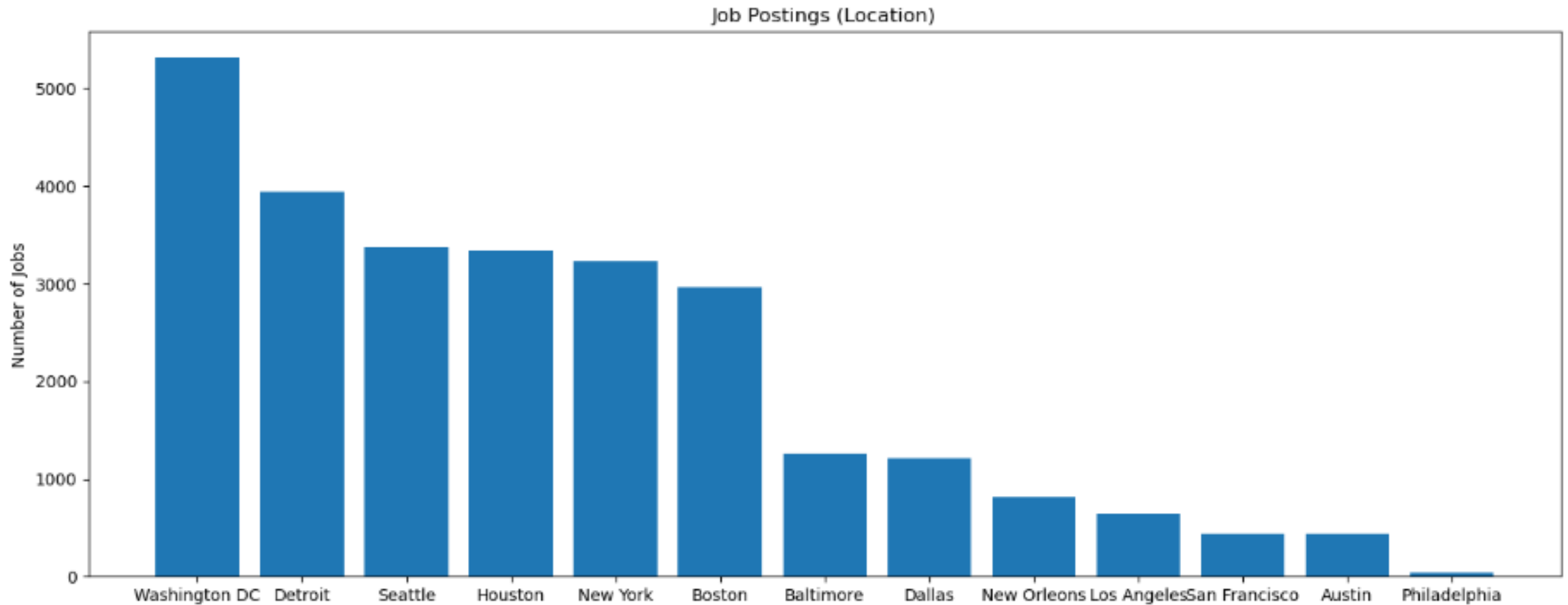


APPENDIX

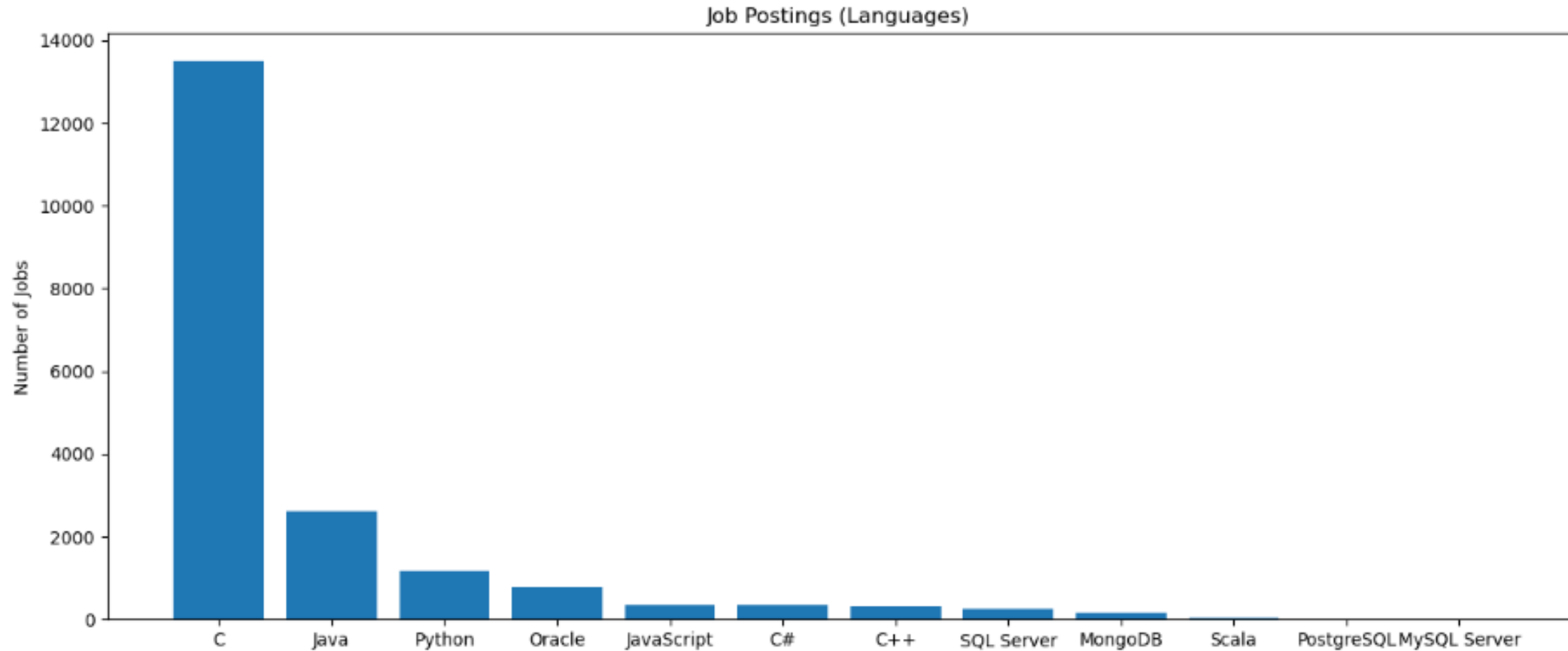


- Top Misc. Techs (current and next year)
 - Node.js
 - .NET
 - .NET Core
- Future Misc. Tech. in demand
 - TensorFlow (library for ML)
- Interest in Machine Learning

JOB POSTINGS



JOB POSTINGS



POPULAR LANGUAGES

