Trending Programming Skills in 2019

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IBM Developer

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OUTLINE

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EXECUTIVE SUMMARY

What were the top technical skills possessed by developers in 2019?

In this report I will share my findings from analyzing Stack Overflows developer survey for 2019.

I will answer questions such as:

▶ What were the top possessed and desired programming languages?

▶ What were the top possessed and desired database skills?

▶ What were the top possessed and desired platforms?

▶ What were the top possessed and desired web frames?

I will also compliment the analysis with information from GitHub job postings to put it into context of what programming skills recruiters are looking for.

INTRODUCTION

In the modern digital age, programming languages serve as the backbone of technological advancement and innovation. They are the tools that transform ideas into functional software, enabling everything from simple web pages to complex artificial intelligence systems. As technology continues to evolve at a rapid pace, the demand for skilled programmers is escalating across various industries. Understanding the current trends in programming languages is crucial for both job seekers and employers to stay competitive in the job market.

In this report I share my insights from analyzing the 2019 Stack Overflow developer survey.

METHODOLOGY

- ▶ Data collection
  - ▶ GitHub Jobs API
  - ▶ Stack Overflow 2019 developer survey
- ▶ Data Wrangling
  - ▶ Duplicates and missing values have been excluded
- ▶ Statistical analysis
  - ▶ Top programming languages in demand
  - ▶ Top database skills in demand
  - ▶ Most popular IDEs
  - ▶ Demographics

RESULTS

console.log("JavaScript continues to be the most widely used programming language, particularly in web development. Its versatility, combined with frameworks like React, Angular, and Vue.js, makes it indispensable for building dynamic and responsive web applications.");

SELECT "SQL remains the standard language for database management and manipulation. Its importance in data querying, reporting, and analytics cannot be overstated, as businesses increasingly rely on data-driven decision-making.";

Print("Python's popularity has surged, especially in the fields of data science, machine learning, and artificial intelligence. Its simplicity and readability, along with a vast array of libraries such as NumPy, pandas, TensorFlow, and scikit-learn, make it the language of choice for data analysis and scientific computing.")

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PROGRAMMING LANGUAGE TRENDS

Current Year

Next Year

Top 10 Most Popular Programming Languages
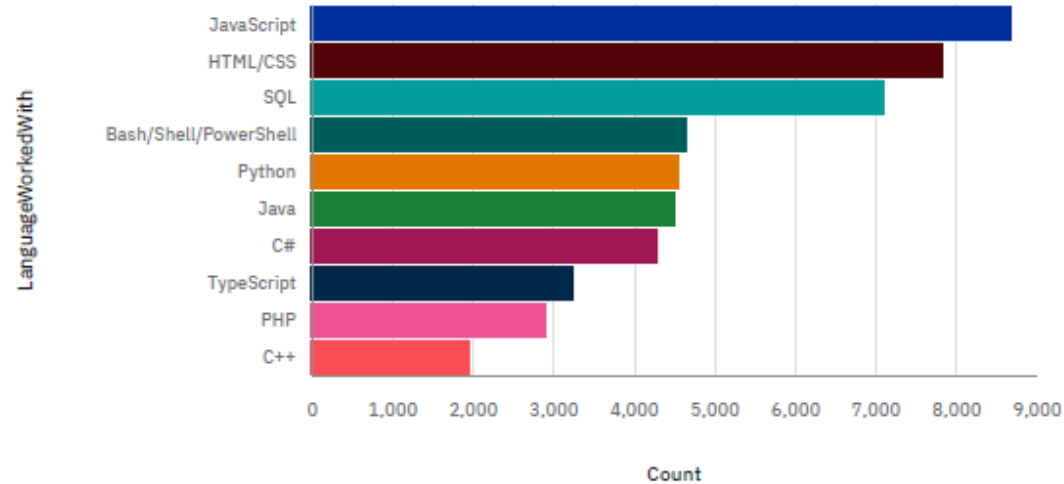
Top 10 Most Desired Programming Languages
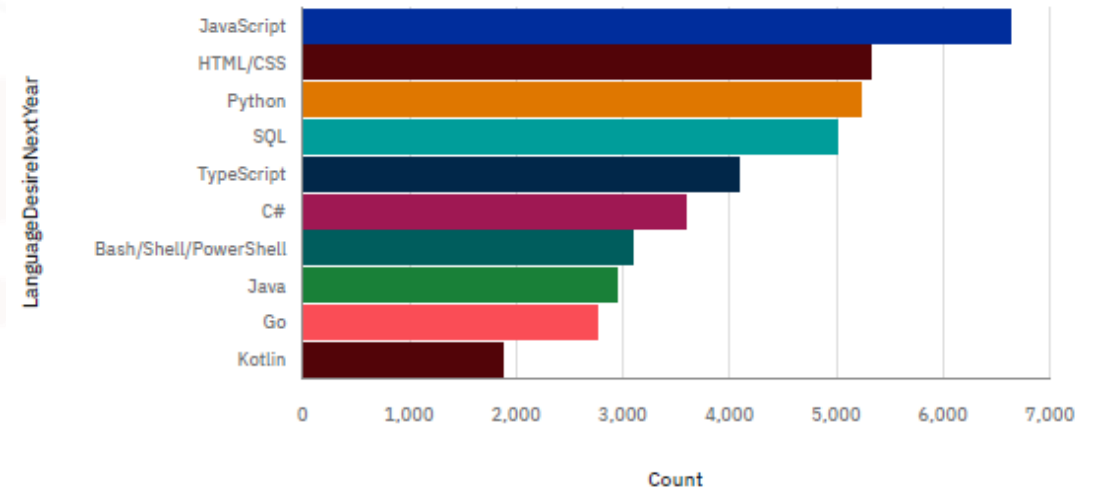
PROGRAMMING LANGUAGE TRENDS - FINDINGS & IMPLICATIONS

Findings

- Specialized languages (JS, HTML, SQL, Shell) are more popular than general-purpose languages (Python, Java, C#, C++).
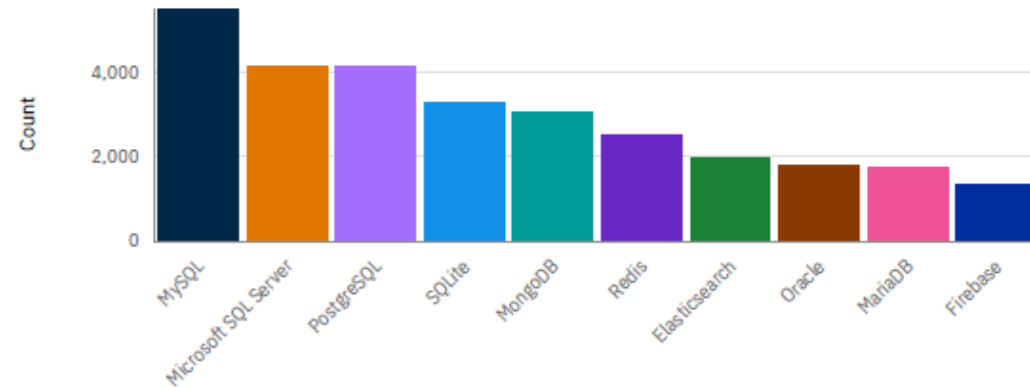
Implications

- When for example working with databases you would want to use SQL. But when working on things that can be done with any of the general-purpose languages, the choice of languages is more optional.

DATABASE TRENDS

Current Year

Next Year

Top 10 Most Popular Databases

Top 10 Most Desired Databases
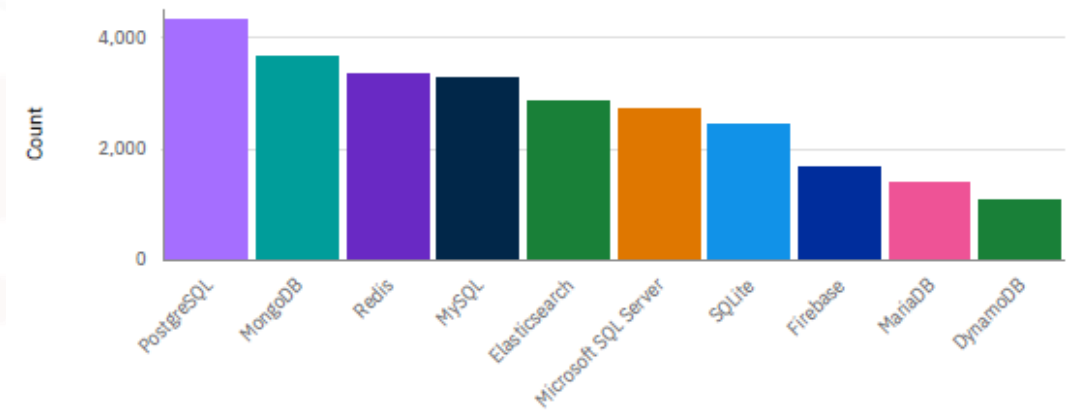
DATABASE TRENDS – FINDINGS & IMPLICATIONS

Findings

- MySQL is the most popular RDBMS

- PostgreSQL is the RDBMS most desired to learn

Implications

- The gaining popularity for PostgreSQL might be due to the free and open-source aspect.

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DASHBOARD

https://eu1.ca.analytics.ibm.com/bi/?perspective=dashboard&pathRef=.my_folders%2FCapstone&action=view&mode=dashboard&subView=model0000018fbc17e9dc_00000003

DASHBOARD TAB 1

Current Technology Usage

Top 10 Most Popular Programming Languages
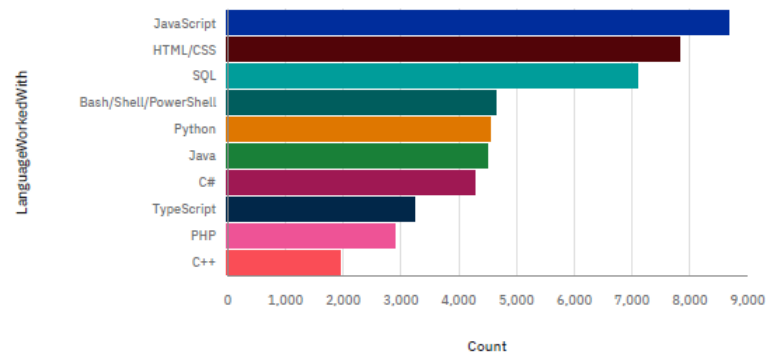
Top 10 Most Popular Databases
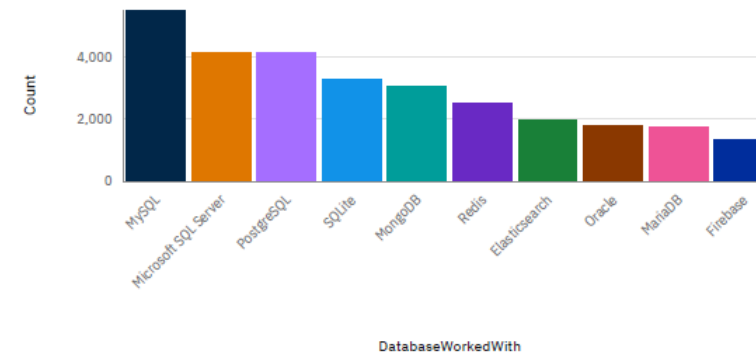
Platform Popularity
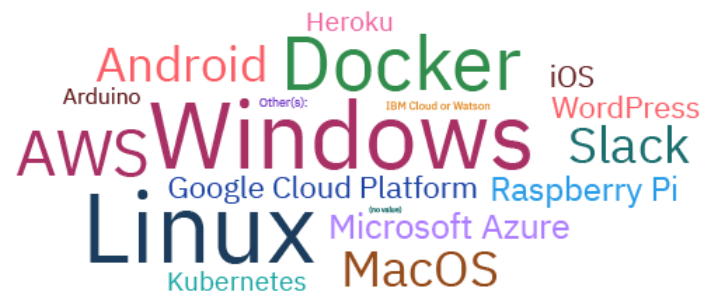
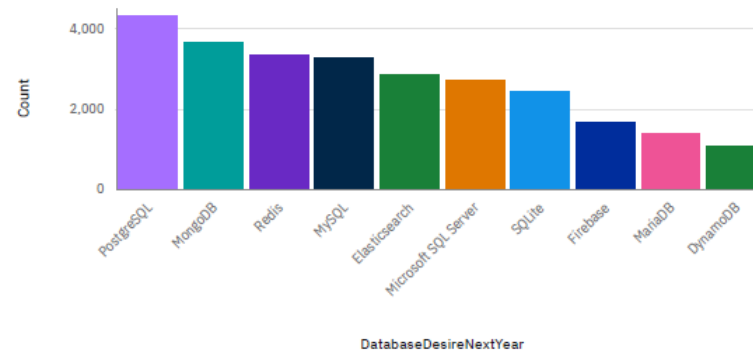Web Frame Popularity
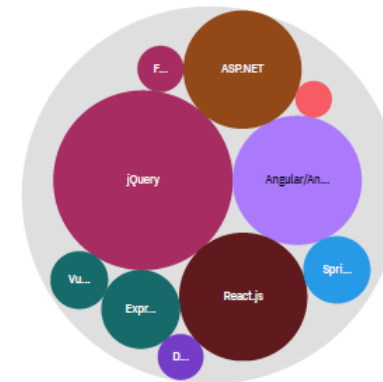
DASHBOARD TAB 2

Future Technology Trend

Top 10 Most Desired Programming Languages
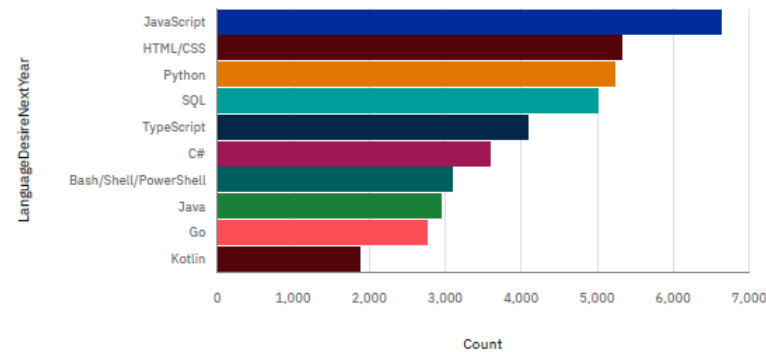
Top 10 Most Desired Databases

Most Desired Platforms

Most Desired Web Frames
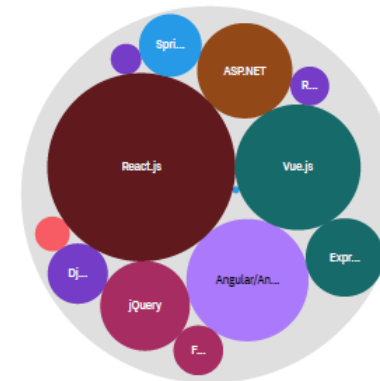
DASHBOARD TAB 3
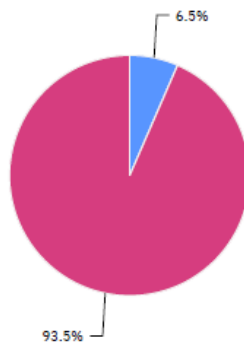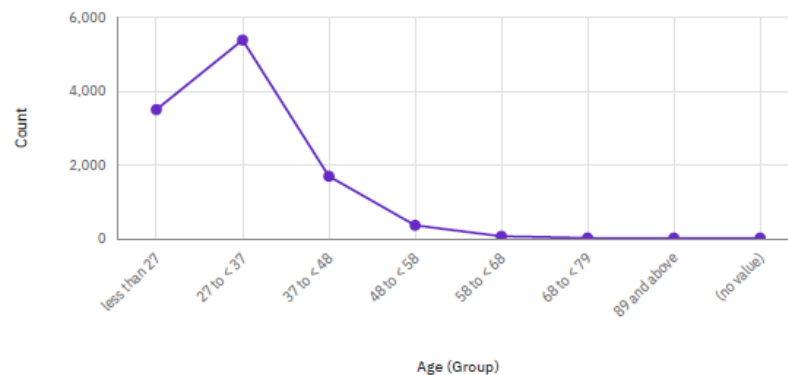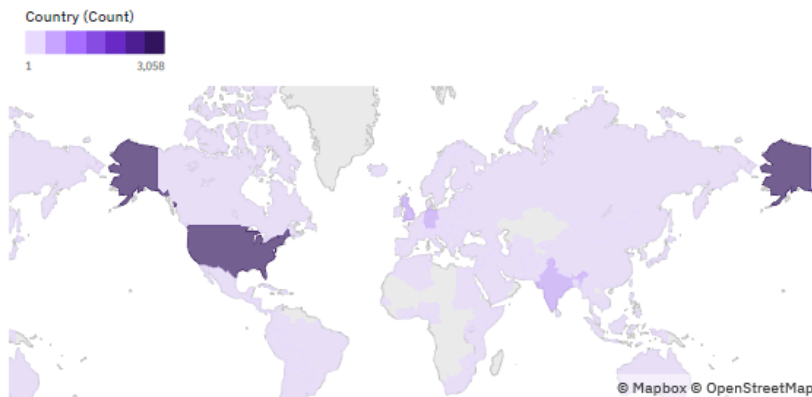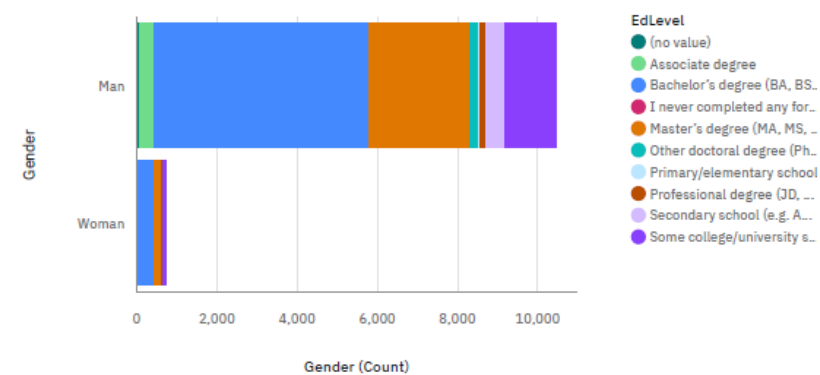
OVERALL FINDINGS & IMPLICATIONS

Findings

- Men av overrepresented in the developer field.

- General purpose languages are more optional than specialized ones.

- Stack Overflow is used a lot in USA.

Implications

- There needs to be more women in tech.

- If you want to work with databases, learn SQL.
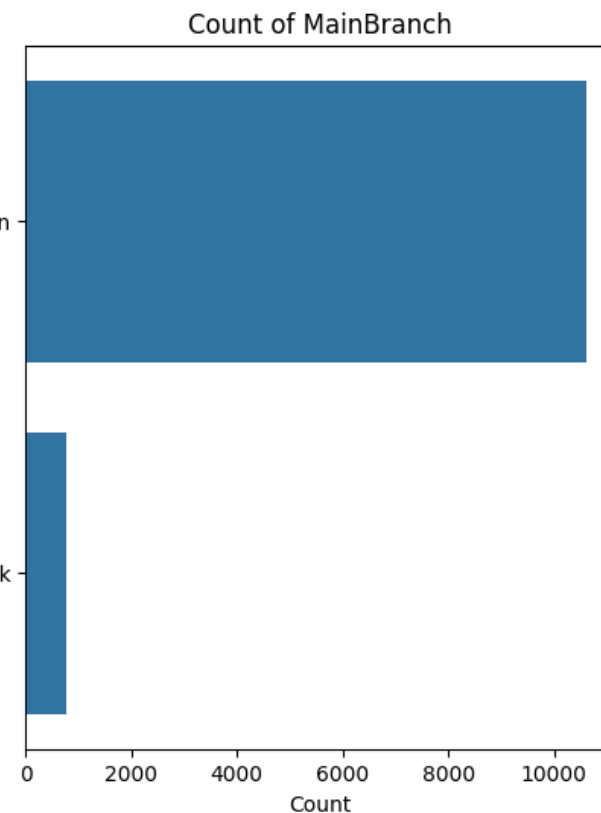
- This report mostly reflects USA.

APPENDIX

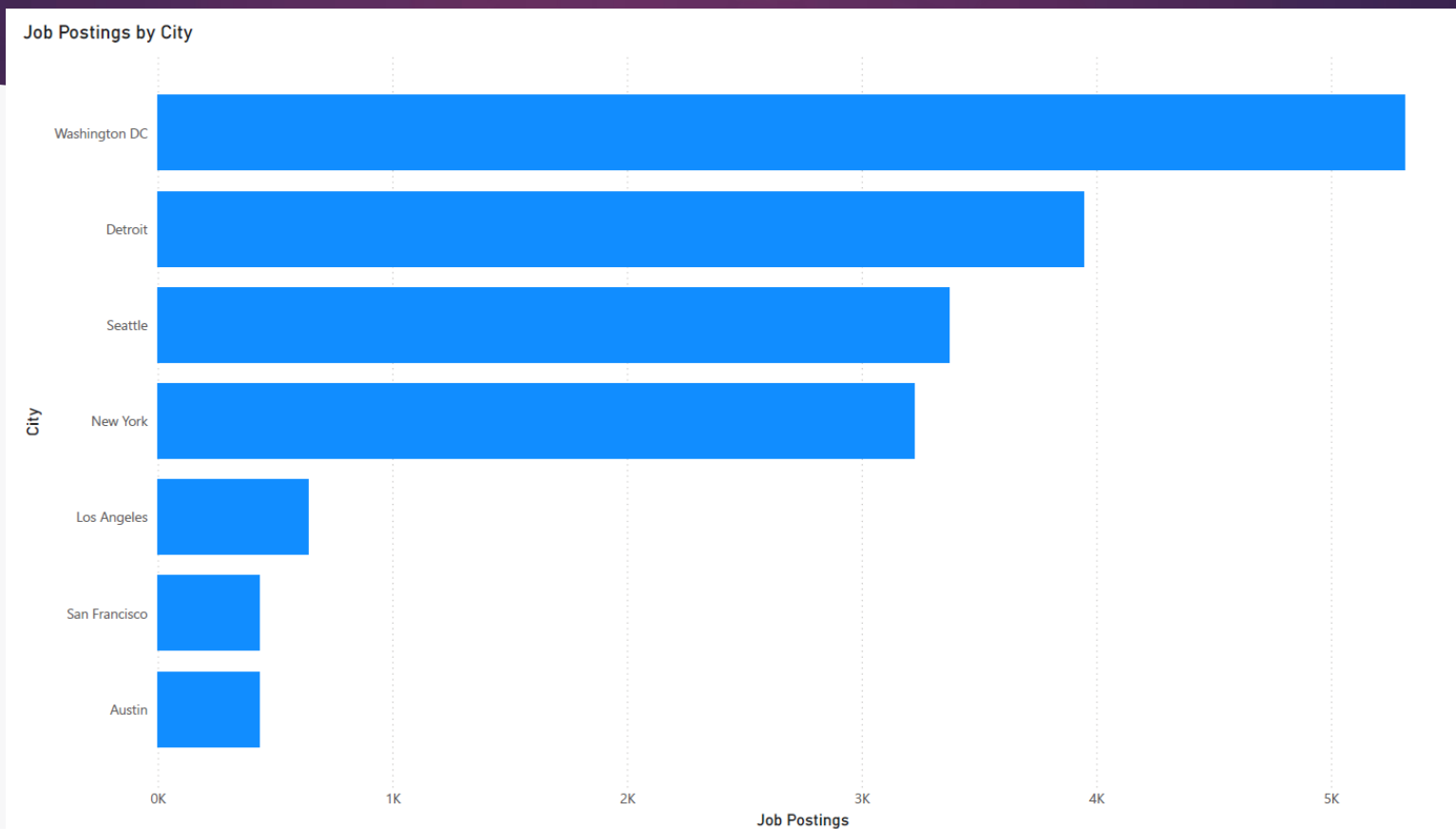Count of MainBranch

I am a developer by profession

MainBranch

I am not primarily a developer, but I write code sometimes as part of my work

0   2000   4000   6000   8000   10000

Count

JOB POSTINGS

Job Postings by City

POPULAR LANGUAGES

Average Annual Salary by Language