# آشنایی با مشاغل دنیای

برنامهنویسی، میرزان استخدام

و درآمسد آنسها گروه برنامهنویسی شتاب – اردیبهشت

98

# برنامه امسروز ما

معرفی مشاغل (زبان ها) و اطلاعات آماری از برنامهنویس

لها

# تفاوتهای استخدام و توجه به مشاغل مختلف در دنیا

- توجههای متفاوت به یک شغل
  - اگر قصد مهاجرت داریم

منبع آمار ما

## Stackoverflow.com

### نکات کلیدی این آمار

- رشد فوق العاده پایتون
- میانگین سنی شروع به کدنویسی: 16 سالگی
- متخصصین DevOps و SRE (مهندسی ضریب اطمینان):

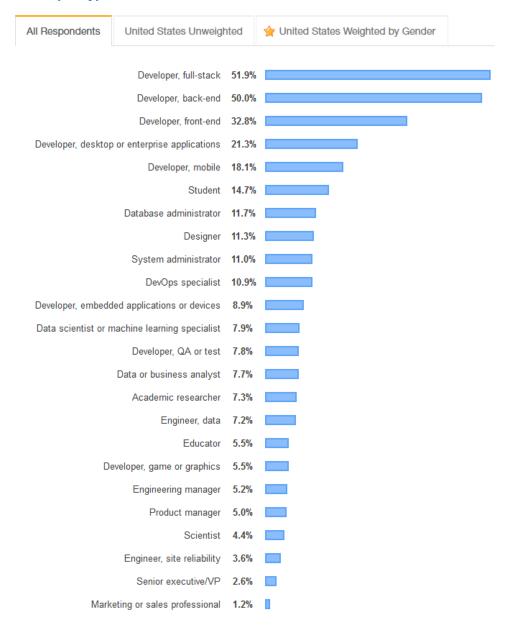
پردرآمدترین، باتجربهترین، راضیترین

• چینی ها امیدوارترین، اروپای غربی کمامیدترین

# همه چیز از نگاه آمار

تصمیمگیری با شما!

#### **Developer Type**



•40% شرکتکننده ها کمتر از 5 سال تجربه برنامهنویسی

دارن.

•بیشترین تجربه برنامهنویسی برای کسایی که با زبانهای

VBA و #F و Closure کار میکنن

• کمترین میزان تجربه کار حرفه ای برای کسایی که Python،

PHP و Kotlin کار میکنن

#### **Educational Attainment**

All Respondents

Professional Developers

I never completed any formal education 0.6%

Primary/elementary school 1.6%

Secondary school 10.0%

12.2%

Some college/university study without earning a

degree

Associate degree 3.4%

Bachelor's degree 45.3%

Master's degree 22.7%

Professional degree 1.4%

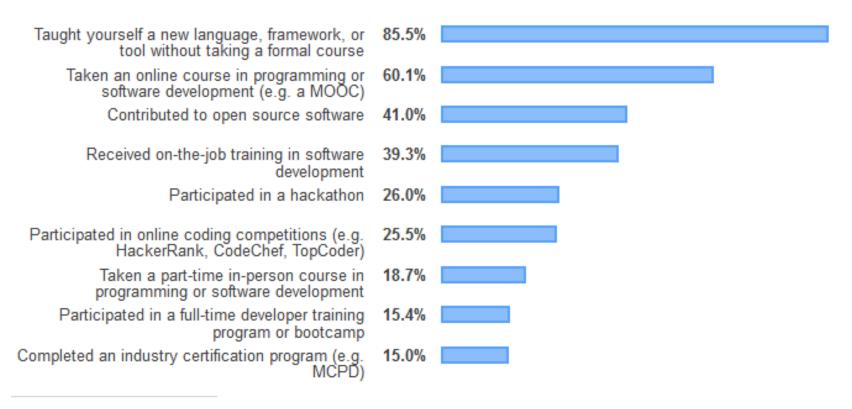
Doctoral degree 2.8%

86,390 responses

#### Other Types of Education

All Respondents

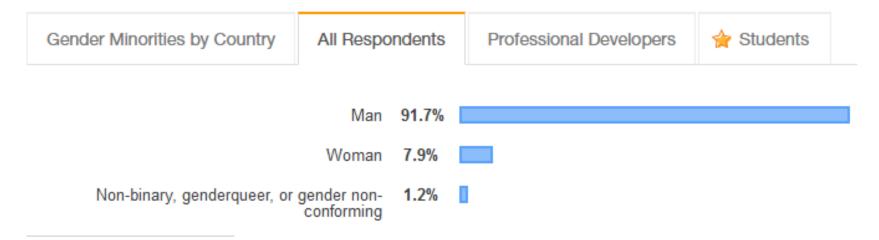
Professional Developers



84,260 responses; select all that apply

برنامهنویسها همیشه در حال یادگیری هستن تقریبا 90% برنامهنویسها میگن که به صورت خودآموز ابزارها، زبانها و فریمورکها رو یاد گرفتن

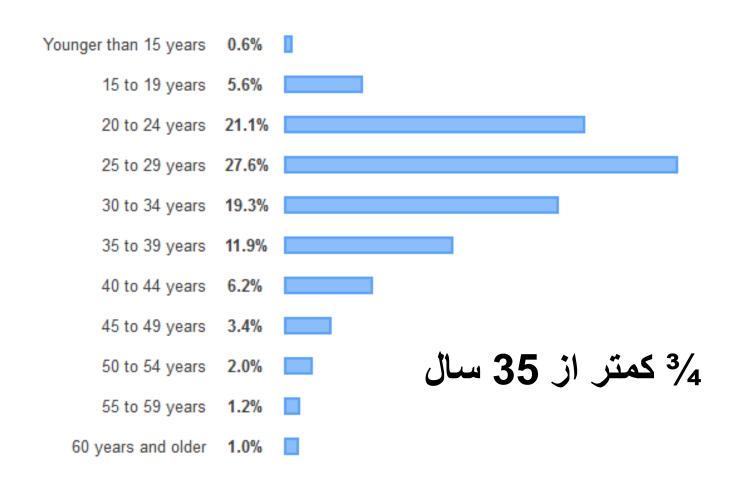
#### Gender



85,406 responses; select all that apply



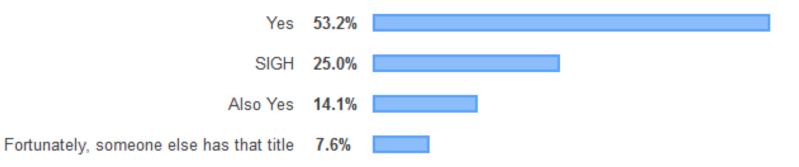
All Respondents



#### Families and IT Support

Are you the IT Support Person for Your Family?

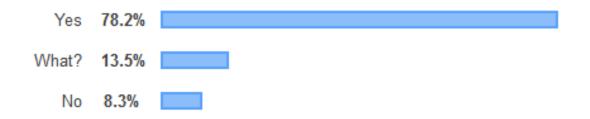
Have You Tried Turning It Off and On Again?



#### Families and IT Support

Are you the IT Support Person for Your Family?

Have You Tried Turning It Off and On Again?

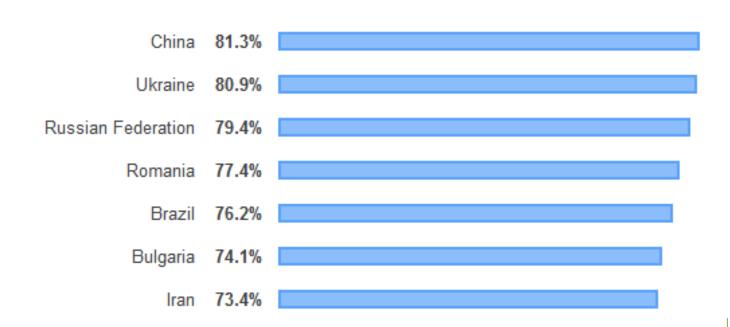


86,663 responses

#### Will People Born Today Have a Better Life Than Their Parents?

Overall

By Country



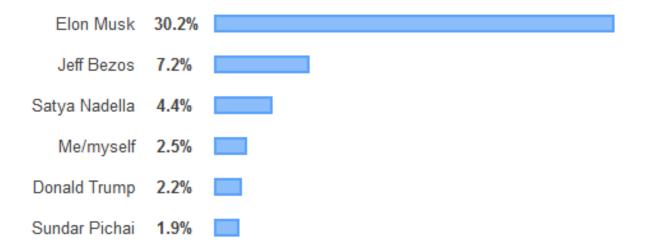
Canada	57.7%	
United Kingdom	56.9%	
Spain	56.6%	
Germany	56.2%	
Netherlands	55.1%	
Italy	54.3%	
Switzerland	52.9%	
Belgium	47.4%	
France	40.8%	

#### IRL or online chat?



87,305 responses

#### What Individual Person Will Have the Most Influence In Tech This Year?

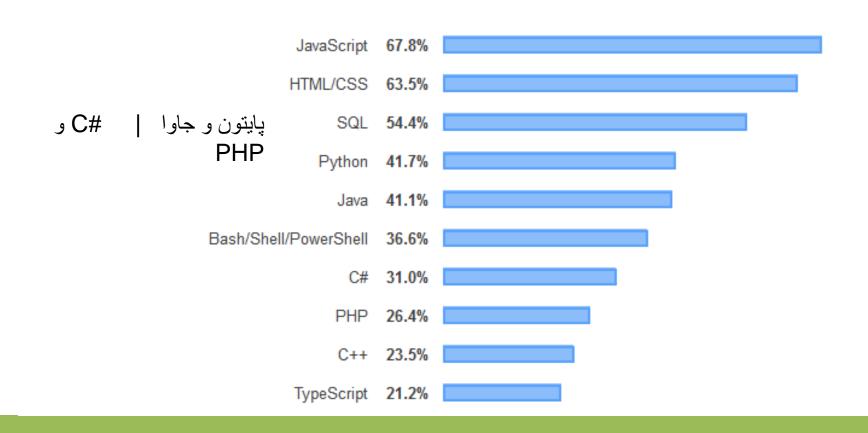




#### **Most Popular Technologies**

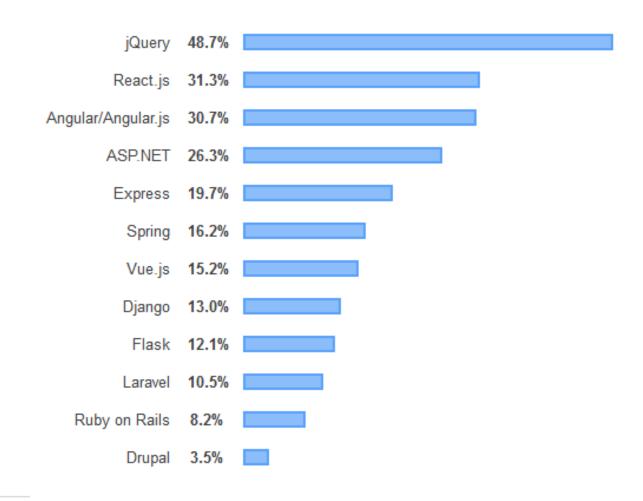
#### Programming, Scripting, and Markup Languages

All Respondents



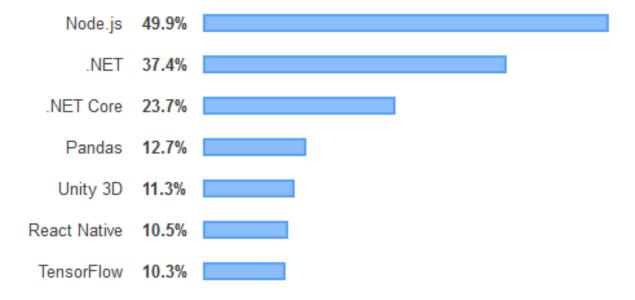
#### Web Frameworks

All Respondents



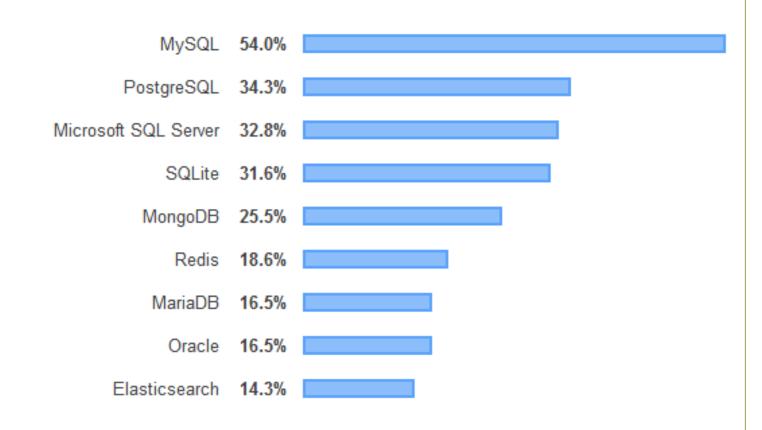
#### Other Frameworks, Libraries, and Tools

All Respondents



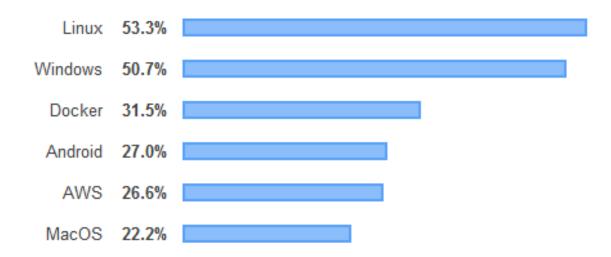
#### **Databases**

All Respondents



#### **Platforms**

All Respondents

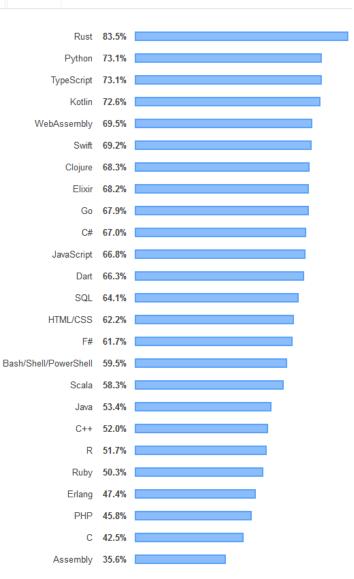


## Loved | Dreaded | Wanted

## **Programming Languages**

#### Most Loved, Dreaded, and Wanted Languages

Loved Dreaded Wanted



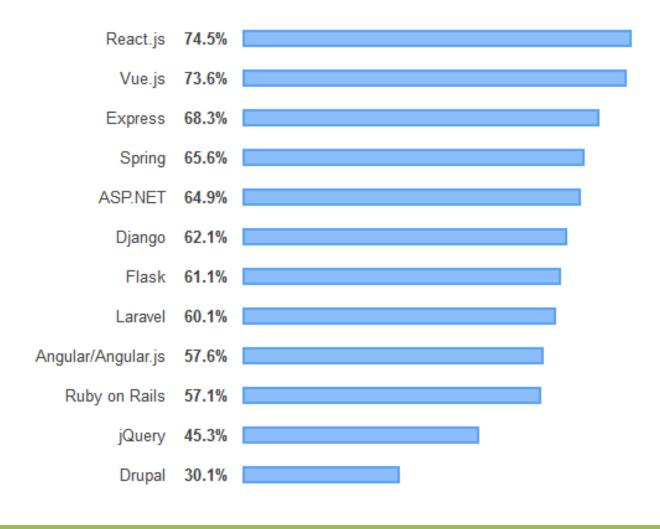
#### Most Loved, Dreaded, and Wanted Languages Loved Dreaded Wanted VBA 75.2% Objective-C 68.7% Assembly 64.4% C 57.5% PHP 54.2% Erlang **52.6**% Ruby 49.7% R 48.3% C++ 48.0% Java 46.6% Scala 41.7% Bash/Shell/PowerShell 40.5% F# 38.3% HTML/CSS 37.8% SQL 35.9% Dart 33.7% JavaScript 33.2% C# 33.0% Go 32.1% Elixir 31.8% Clojure 31.7% Swift 30.8% WebAssembly 30.5% Kotlin 27.4% TypeScript 26.9%

#### Most Loved, Dreaded, and Wanted Languages Loved Dreaded Wanted Python 25.7% JavaScript 17.8% Go 15.0% TypeScript 14.6% Kotlin 11.1% Rust 9.5% C++ 9.1% WebAssembly 8.9% Java 8.3% SQL 7.6% C# 7.0% HTML/CSS 6.6% Swift 5.8% C 5.0% R 4.9% Ruby 4.4% Scala 4.3% Bash/Shell/PowerShell 4.0% Dart 3.8% PHP 3.5% Elixir 3.4% F# 3.3% Assembly 3.1% Clojure 2.2% Erlang 2.0%

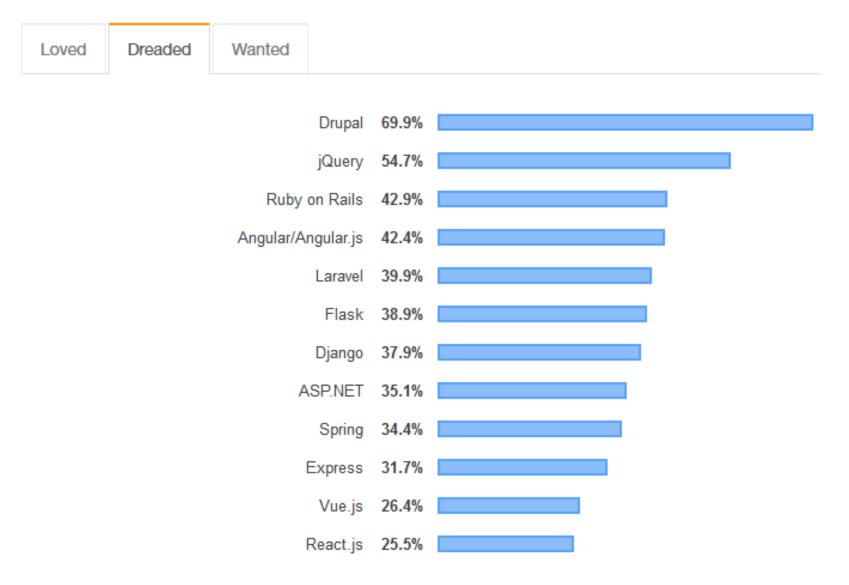
## Web Frameworks

#### Most Loved, Dreaded, and Wanted Web Frameworks

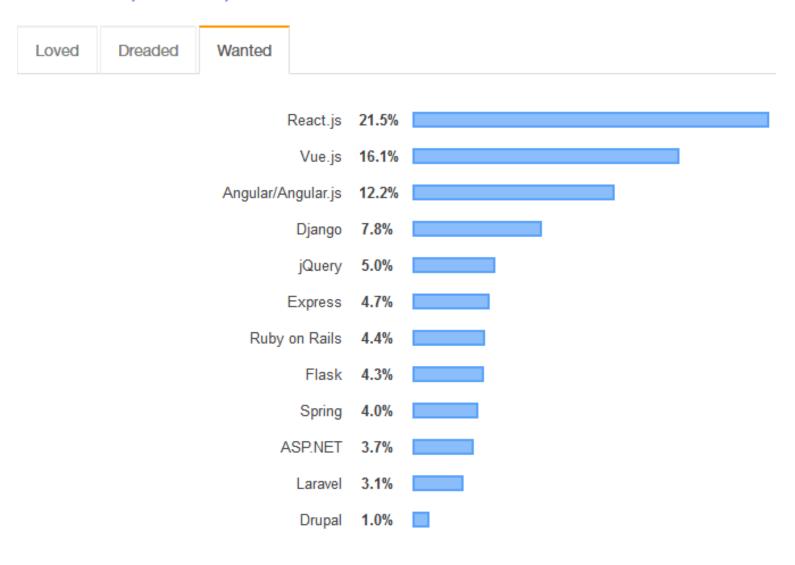
Loved Dreaded Wanted



#### Most Loved, Dreaded, and Wanted Web Frameworks



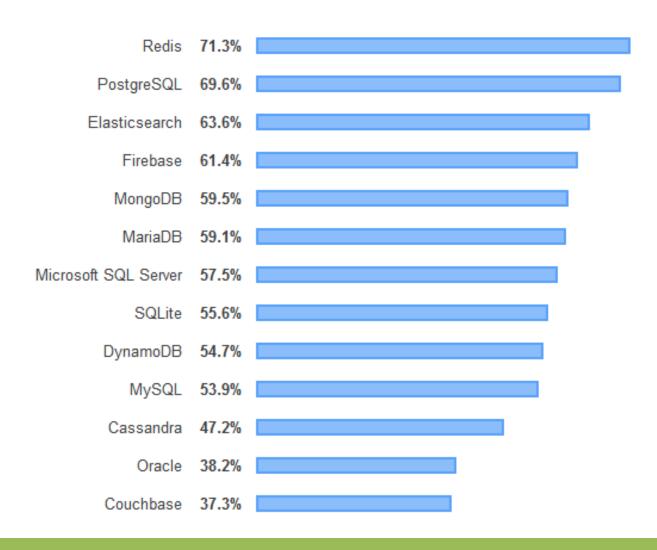
#### Most Loved, Dreaded, and Wanted Web Frameworks



### **Databases**

#### Most Loved, Dreaded, and Wanted Databases

Loved Dreaded Wanted



#### Most Loved, Dreaded, and Wanted Databases

Dreaded Wanted Loved Couchbase 62.7% Oracle 61.8% Cassandra 52.8% MySQL 46.1% DynamoDB 45.3% SQLite 44.4% Microsoft SQL Server 42.5% MariaDB 40.9% MongoDB 40.5% Firebase 38.6% Elasticsearch 36.4% PostgreSQL 30.4% Redis 28.7%

#### Most Loved, Dreaded, and Wanted Databases

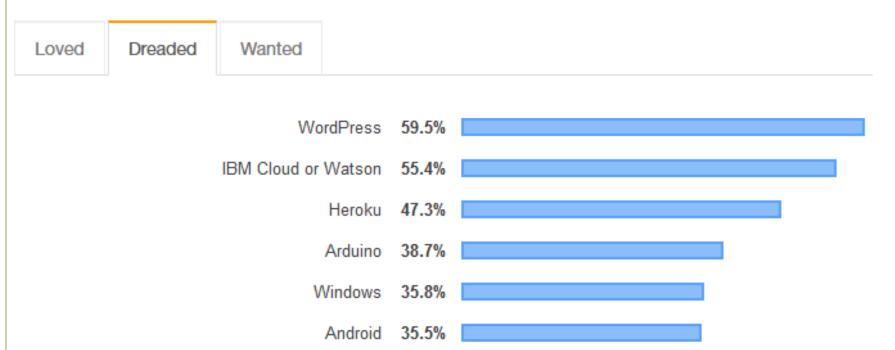
Loved Dreaded Wanted MongoDB 17.8% PostgreSQL 13.6% Elasticsearch 11.1% Redis 10.7% MySQL 8.2% Firebase 7.6% SQLite **7.2**% Cassandra 5.6% DynamoDB 4.3% MariaDB 3.5% Oracle 3.4% Microsoft SQL Server 3.3% Couchbase 2.2%

## **Platforms**

#### Most Loved, Dreaded, and Wanted Platforms

Wanted Dreaded Loved Linux 83.1% Docker 77.8% Kubernetes 76.8% Raspberry Pi 72.1% AWS 71.6% MacOS 70.5% iOS 68.1% Google Cloud Platform 66.8% Microsoft Azure 65.4% Slack 65.2% Android 64.5% Windows 64.2% Arduino 61.3% Heroku 52.7% IBM Cloud or Watson 44.6% WordPress 40.5%

#### Most Loved, Dreaded, and Wanted Platforms



#### Most Loved, Dreaded, and Wanted Platforms

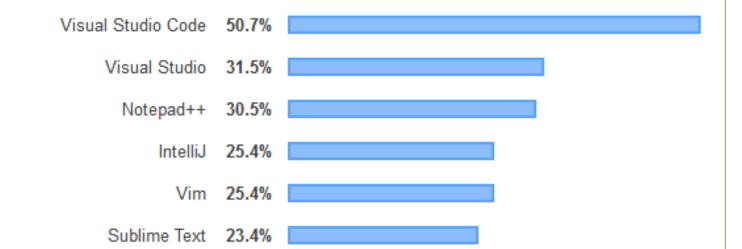
Wanted Loved Dreaded Docker 21.1% AWS 16.5% Android 16.2% Kubernetes 15.4% Linux 14.6% Google Cloud Platform 11.8% Raspberry Pi 11.8%

iOS 9.5%



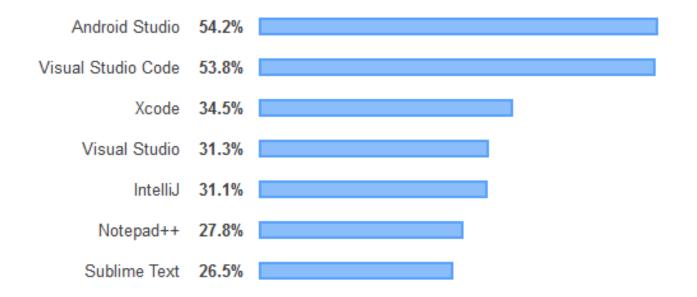
## **Most Popular Development Environments**

All Respondents Web Developers Mobile Developers SRE/DevOps



#### **Most Popular Development Environments**

All Respondents Web Developers Mobile Developers SRE/DevOps



## **Developers' Primary Operating Systems**

All Respondents

Professional Developers



# Salaries!

#### What Languages Are Associated with the Highest Salaries Worldwide? Global **United States** Clojure \$90k Go Scala \$78k Elixir \$76k Ruby \$75k WebAssembly \$73k Rust \$72k Erlang \$71k Bash/Shell/PowerShell \$69k R \$64k Python \$63k Objective-C \$62k TypeScript \$60k Swift \$59k Kotlin \$57k SQL \$57k JavaScript \$56k \$55k HTML/CSS VBA Assembly \$52k \$52k Java \$52k

		e Highest Salaries Worldwide?
obal United States		
Scala	<b>\$1</b> 43k	
Clojure		
Go		
Erland	*	
Objective-C		
WebAssembly		
Kotlin		
Rusi		
F#		
Elixi		
Ruby		
C		
C++		
Swift		
Bash/Shell/PowerShel		
	\$118k	
Pythor		
Assembly	\$116k	
TypeScript	\$115k	
Dari	\$110k	
JavaScript	\$110k	
SQL	\$110k	
F	\$108k	
C#	\$105k	
HTML/CSS	<b>\$1</b> 05k	

## **Employment Status**

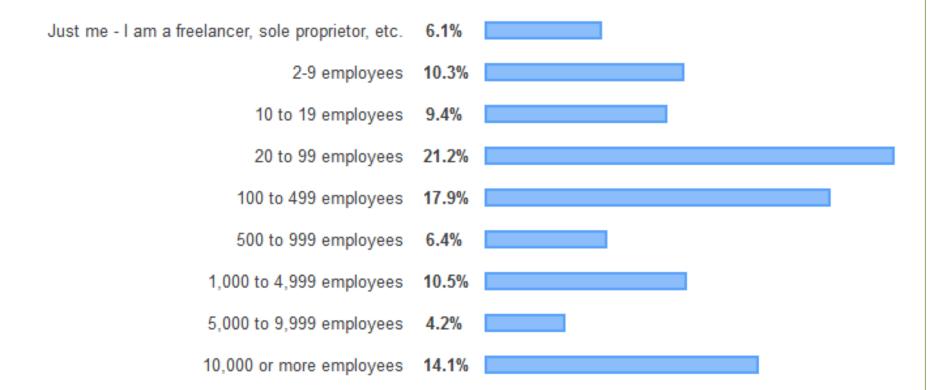
All Respondents

Professional Developers

Employed full-time	73.9%	
Independent contractor, freelancer, or self- employed	9.8%	
Not employed, but looking for work	6.4%	
Employed part-time	5.1%	
Not employed, and not looking for work	4.4%	
Retired	0.4%	

87,181 responses

#### **Company Size**



#### **How Do Developers Feel About Their Careers and Jobs?**

Career Satisfaction Job Satisfaction

Very dissatisfied 5.1%

Slightly dissatisfied 10.5%

Neither satisfied nor dissatisfied 10.0%

Slightly satisfied 34.3%

Very satisfied 40.0%

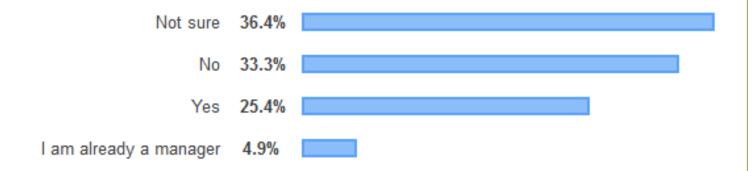
72,847 responses

## Do Developers Need to Become Managers to Make More Money?



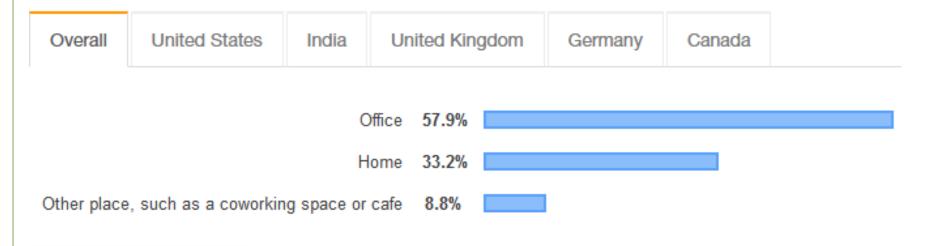
61,157 responses

## Do Developers Want To Become Managers in the Future?



61,232 responses

## Where Do Developers Want to Work?

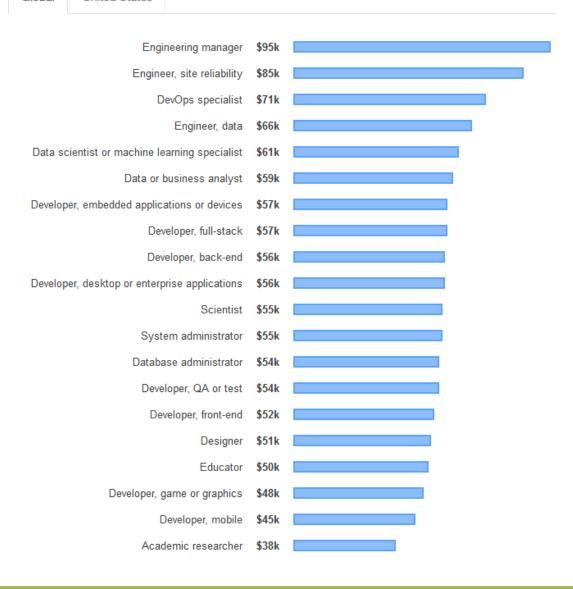


70,055 responses

#### Salary by Developer Type

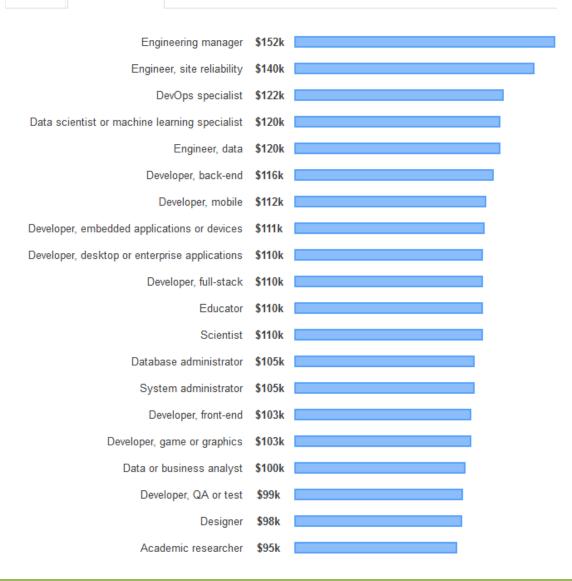
Global

**United States** 



#### Salary by Developer Type

Global United States



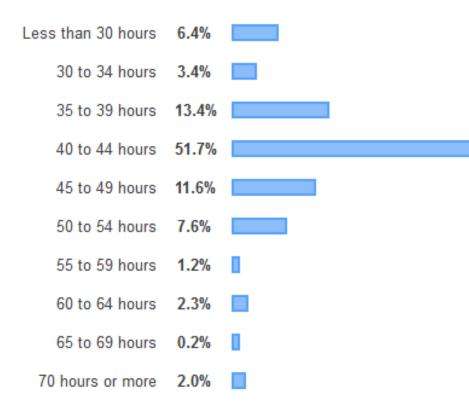
#### **Hours Worked Per Week**

Overall

By Developer Type



By Country



GERMANY		FRANCE		INDIA	<b>®</b>
Software developer	\$47,756	Software developer	\$37,081	Software developer	\$5,779
Java Developer	\$47,824	Java Developer	\$42,302	Java Developer	\$5,952
.Net Developer	\$48,903	.Net Developer	\$35,077	.Net Developer	\$5,231
PHP Developer	\$42,579	PHP Developer	\$32,827	PHP Developer	\$3,636
Data scientist	\$43,141	Data scientist	\$39,981	Data scientist	\$9,210
Front end developer	\$45,027	Front end developer	\$40,109	Front end developer	\$6,303
CANADA	*	UNITED STATES		AUSTRALIA	*
Software developer	\$46,405	Software developer	\$68,963	Software developer	\$50,823
Java Developer	\$47,022	Java Developer	\$72,936	Java Developer	\$57,631
.Net Developer	\$45,226	.Net Developer	\$65,888	.Net Developer	\$49,129
PHP Developer	\$41,423	PHP Developer	\$61,906	PHP Developer	\$48,866
Data scientist	\$55,366	Data scientist	\$92,089	Data scientist	\$66,058
Front end developer	\$41,498	Front end developer	\$67,479	Front end developer	\$53,416

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