Rust Programming Language

By Jin You

A Mozilla Project

" Rust is a systems programming language that runs blazingly fast, prevents segfaults, and guarantees thread safety. "
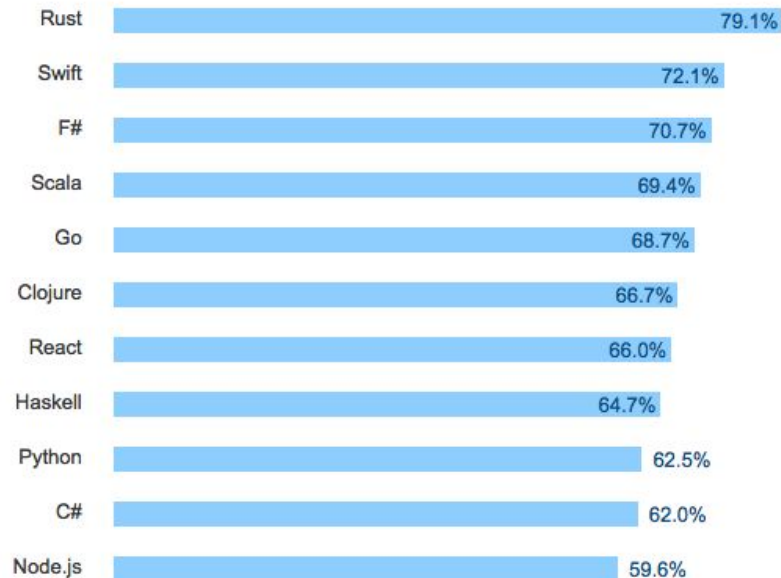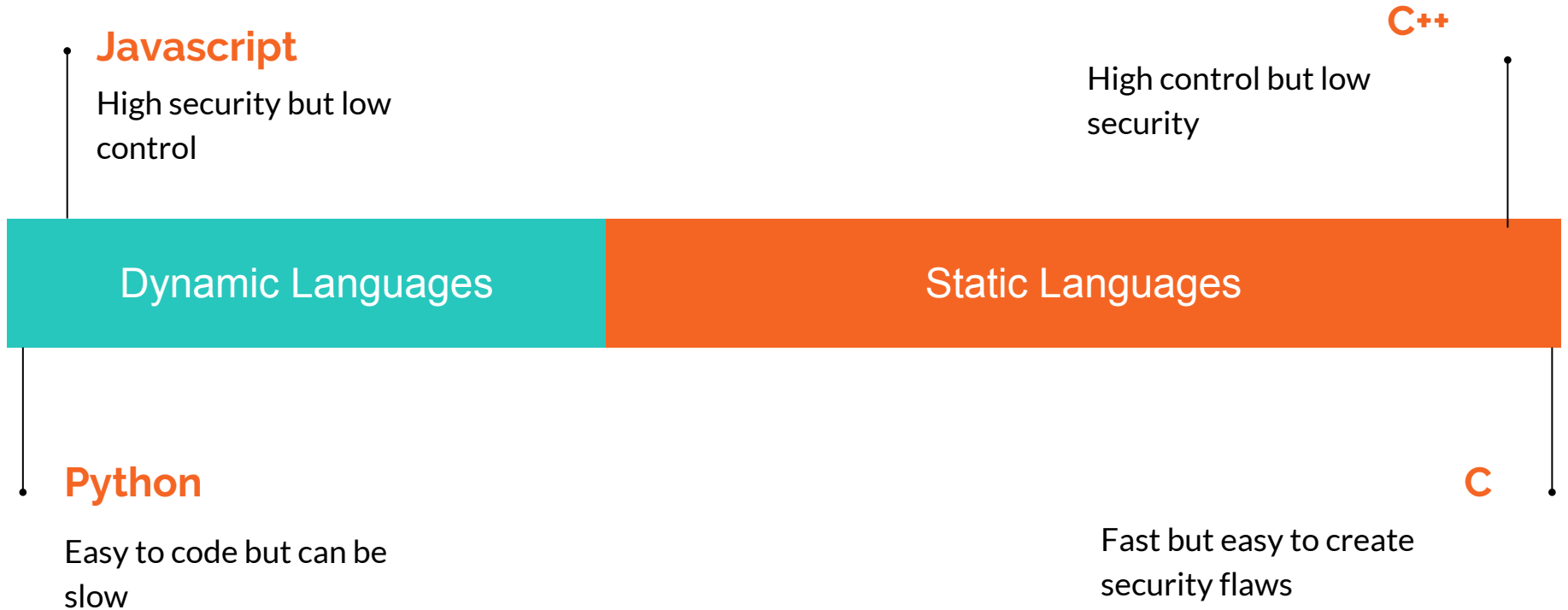
II. Most Loved, Dreaded, and Wanted

Loved | Dreaded | Wanted

Rust	79.1%
Swift	72.1%
F#	70.7%
Scala	69.4%
Go	68.7%
Clojure	66.7%
React	66.0%
Haskell	64.7%
Python	62.5%
C#	62.0%
Node.js	59.6%

% of developers who are developing with the language or tech and have expressed interest in continuing to develop with it

Best of both worlds (safety & speed)

Javascript

High security but low control

C++

High control but low security

| Dynamic Languages | Static Languages |

Python

Easy to code but can be slow

C

Fast but easy to create security flaws

Ownership (How Rust is so Fast and Safe)

- ' Zero-cost abstractions' - abstractions cost as little as possible to work

- Only one variable can own a piece of data

```rust
1    fn main(){
2
3        let vect1 = vec![1,2,3];
4        let vect2 = vect1;
5
6        println!("vect1[0] : {}", vect1[0]);
7
8    }
9
```

vect2 now owns the vector

Works Cited

- https://doc.rust-lang.org/

- https://www.youtube.com/watch?v=agzf6ftEsLU