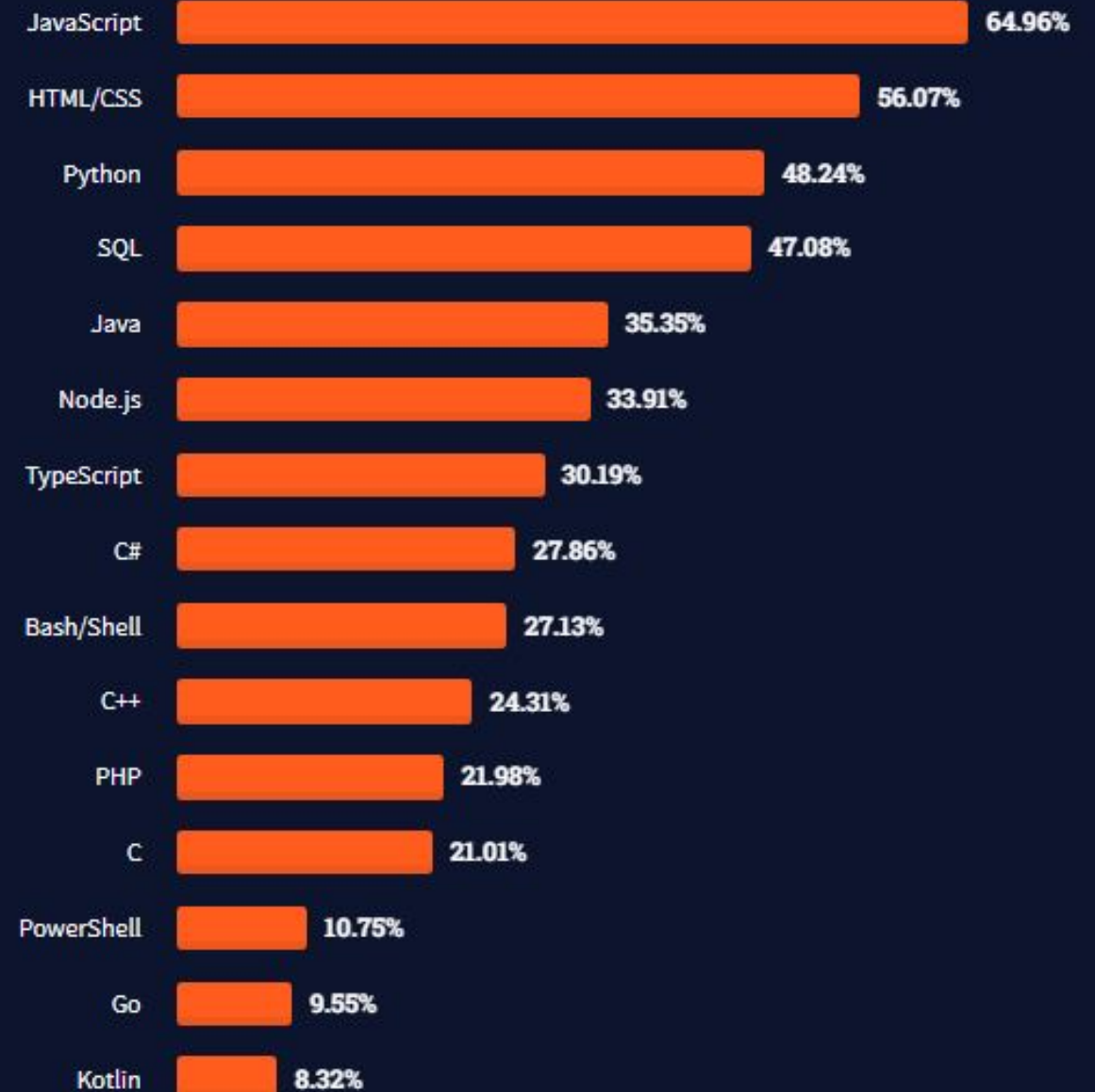# Information Technologies for Industrial Engineers

เทคโนโลยีสารสนเทศสำหรับวิศวกรอุตสาหการ

JavaScript

- JavaScript is the Programming Language for the Web
- Can be used on server-side
  - `Node.js`
- Image Source

TypeScript

- TypeScript is a syntactic superset of JavaScript which adds static typing.

- It shares the same base syntax as JavaScript, but adds something to it.

- *Much beter than JavaScript, trust me.*

Initializing a variable

```
let myName = "Me";
const yourName = "You";
```

Variable types

```javascript
const numberType = 1;
const stringType = "This is a string";
const booleanType = true;
const undefinedType = undefined;
const nullType = null;
const arrayType = [1, 2, 3];
const objectType = { key1: 1, key2: "two" };
```

To check type

```javascript
console.log(typeof numberType);
```

Function

```typescript
// Function
function hello1(name: string) {
  console.log("Hello " + name);
}

// Arrow function
const hello2 = (name: string) => {
  console.log("Hello " + name);
};

// Calling
hello1("Ari");
hello2("Tom");
```

if - else if - else

```javascript
let choice = "A"; // 'A', 'B', 'C'

if (choice === "A") {
  console.log("You chose A.");
} else if (choice === "B") {
  console.log("You chose B.");
} else if (choice === "C") {
  console.log("You chose C.");
} else {
  console.log("You did not choose A, B, or C.");
}
```

Looping code

- Print 10 random numbers

```javascript
for (let i = 0; i < 10; i++) {
  console.log(Math.random()); // 10 randoms numbers
}
```

Looping through an array

```javascript
const cats = ["Leopard", "Serval", "Jaguar", "Tiger", "Caracal", "Lion"];

for (const cat of cats) {
  console.log(cat);
}
```