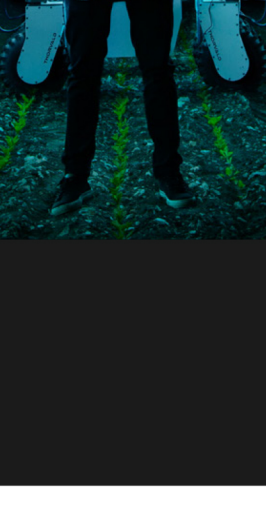
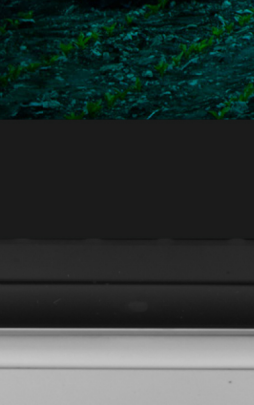


# IN THE NEW DIGITAL WORLD, 75B DEVICES ARE BRINGING CLOUD-NATIVE CONCEPTS TO THE EDGE.

## ARE YOU INVESTING IN THESE TOP 10 SKILLS FOR IOT DEVELOPERS?



### 01 MACHINE LEARNING AND AI

Analyzing large amounts of data requires deciphering patterns and predicting outcomes. As IoT becomes more complex and ubiquitous, AI will need to handle more tasks and make autonomous decisions.

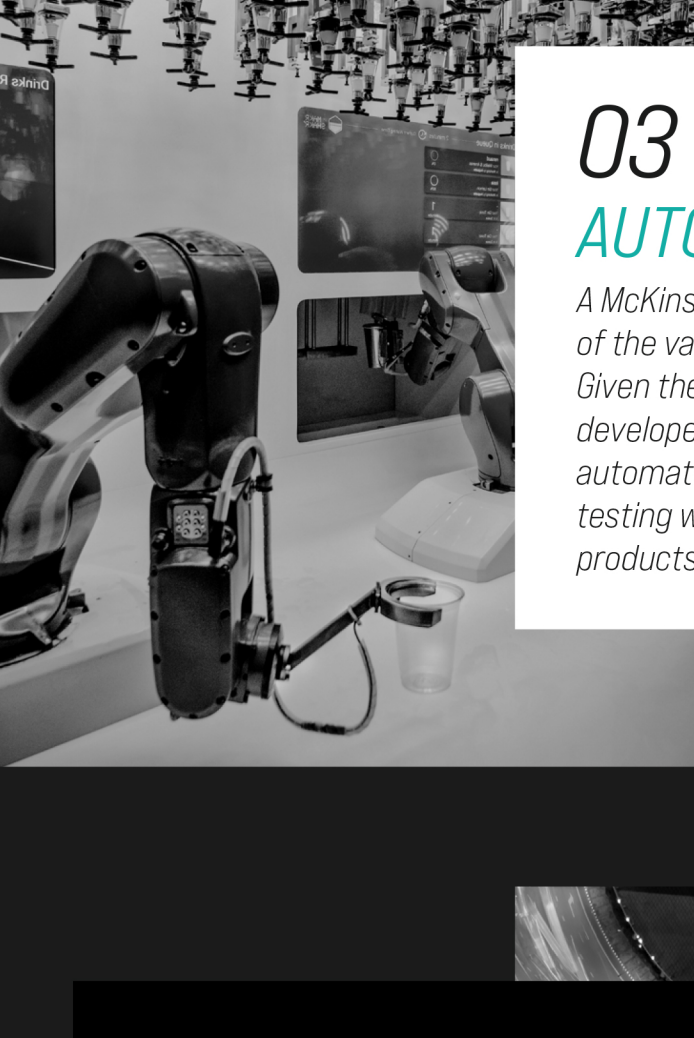
### 02 DESIGNING FOR DATA

Big Data drives the digital world, and the job of software engineers, network engineers, and UX engineers is to make the data work seamlessly for users who must read and interpret it in a meaningful way.



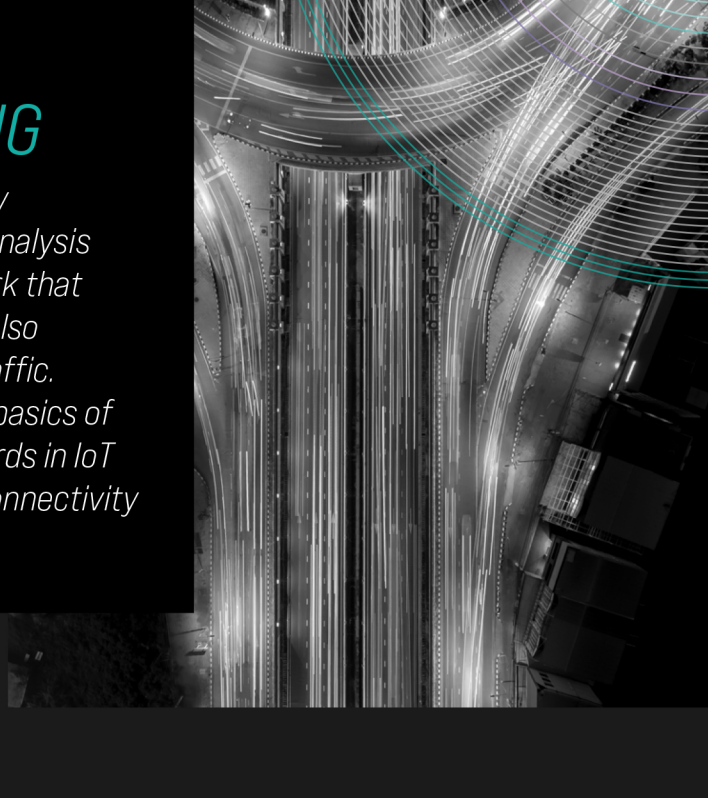
### 03 AUTOMATION

A McKinsey survey found that 40% of the value of IoT is in its operability. Given the large number of interfaces, developers who can connect automatic API testing with manual testing will be the ones who get their products to market.



### 04 IP NETWORKING

The information collected by embedded IoT sensors for analysis must flow through a network that is secure and reliable—and also able to handle enormous traffic. Developers must know the basics of OSI stack, the latest standards in IoT communication, and how connectivity protocols work.



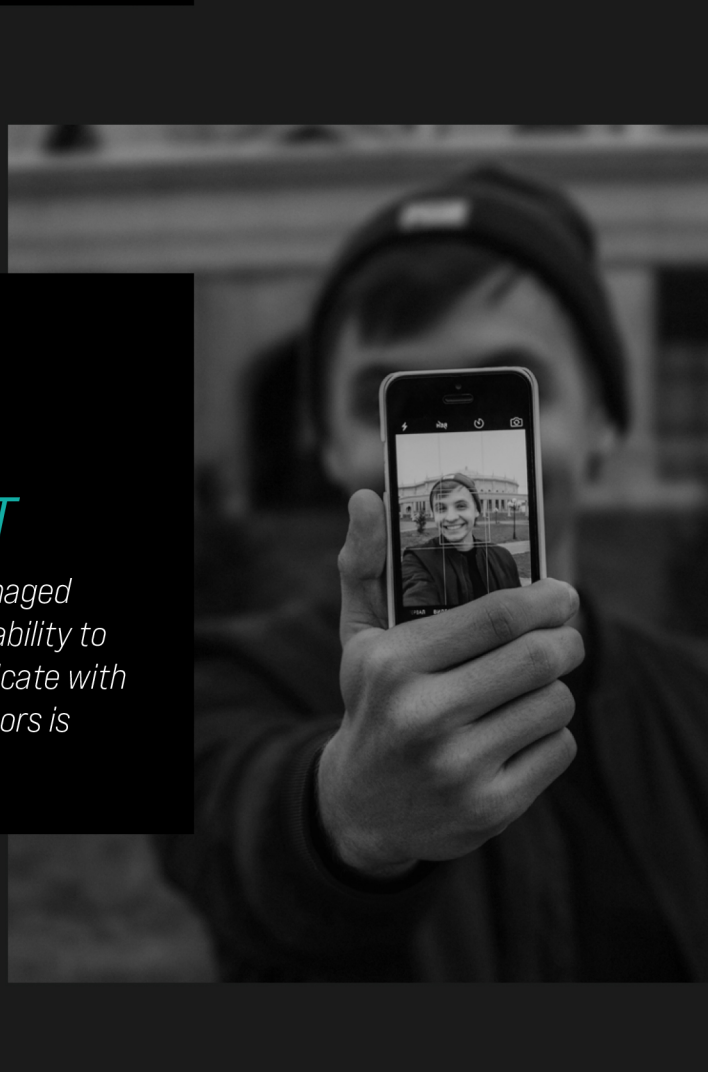
### 05 HARDWARE INTERFACING

Hardware programming is essential for IoT engineers. They must know how to program interfaces, such as GPIO and I2C; understand at least one operating system, such as Linux; and know one embedded system, such as Contiki.



### 06 MOBILE DEVELOPMENT

Most IoT devices will be managed through smartphones. The ability to develop apps that communicate with external hardware and sensors is highly marketable.



### 07 UI/UX DESIGN

The interfaces between the device and the user must be effective and user friendly, or the consumer won't buy. Responsive web design and service design that keeps the end user in mind are prized.



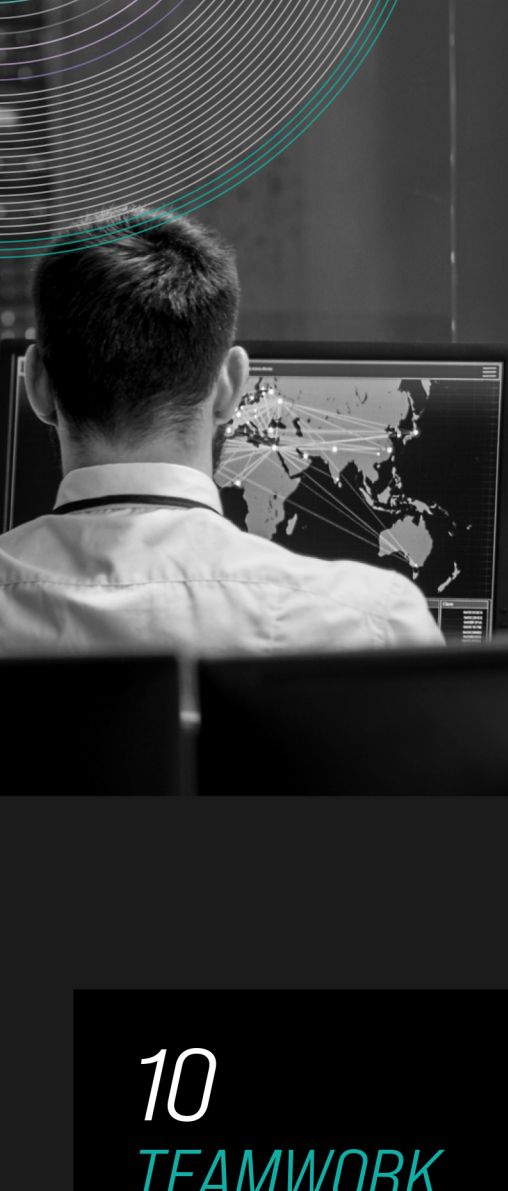
### 08 INFORMATION SECURITY

Security is critical for IoT devices. Developers who are familiar with vulnerability assessment, public key infrastructure (PKI) security, ethical hacking, and wireless network security will be key players.



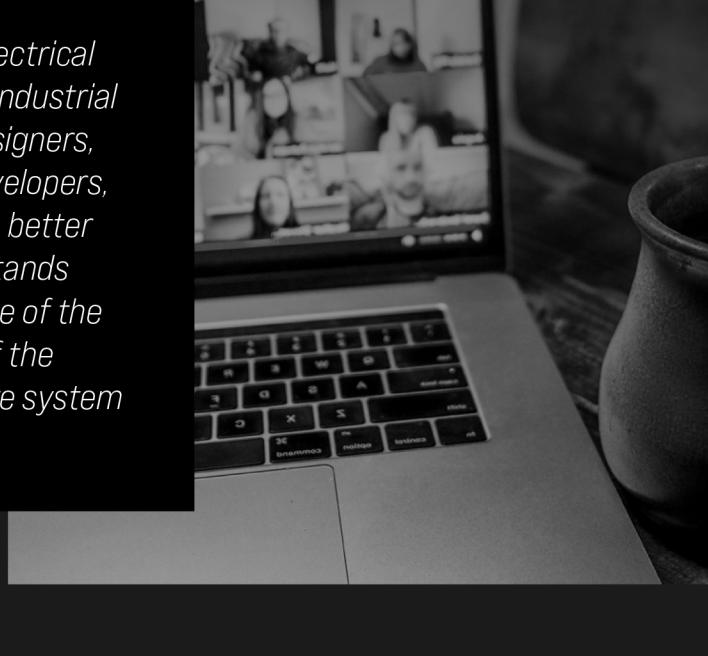
### 09 BUSINESS INTELLIGENCE

IoT is all about collection, storage, and analysis of streams of data from smart devices. Needed skill sets include sensor data analysis, data center management, predictive analytics, and programming in Hadoop and NoSQL.



### 10 TEAMWORK

A basic IoT team includes electrical and mechanical engineers, industrial and embedded systems designers, back-end and front-end developers, and a product manager. The better each team member understands every other role, the purpose of the system, and the end user of the system, the better the entire system will function.



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\*Adapted from <https://iotify.io/top-10-iot-skills-for-developer/>