

## IoT Fundamentals: Big Data & Analytics

For completing the Cisco Networking Academy® Big Data & Analytics course, and demonstrating the ability to perform the following:

- . Explain the value of data analytics for an IoT solution.
- Describe and Apply the data analysis process to solve a problem.
- Apply Python scripts to collect, prepare, analyze and visualize or export data.
- · Apply basic machine learning algorithms.

- Apply data visualization and storytelling techniques to communicate results of analysis.
- Describe approaches to data management including SQL and No-SQL solutions.
- Explain the fundamental concepts behind the main Big Data platforms.

#### Alfonda Dimas Cahava

#### Fakultas Teknik, Universitas Indonesia

#### Indonesia

Location

14 Dec 2023

Date

Laura Juintana Laura Quintana VP & General Manager, Cisco Networking Academy



Cisco Networking Academy

## IoT Fundamentals: Connecting Things

For completing the Cisco Networking Academy® Connecting Things course, and demonstrating the ability to perform the following:

- Explain how IoT technologies are transforming Business and Society.
- Use sensors, actuators and micro-controllers (Arduino) to prototype an IoT solution.
- Use Python, Cisco PL-App and Raspberry Pi to prototype an IoT solution.
- Describe the role of Network and Fog Computing in an IoT solution.
- Describe how IoT Solutions can be used to digitise business applications or address social problems.
- Diagram a business model for a given business or social endeavour using the Business Model Canvas.

#### Alfonda Dimas Cahaya

#### Fakultas Teknik, Universitas Indonesia

### Indonesia

14 Dec 2023

Laura Juinfara
Laura Quintana
VP & General Manager, Cisco Networking Academy



# IoT Fundamentals: Hackathon Playbook

For completing the Cisco Networking Academy® IoT Hackathon, and demonstrating the ability to perform the following:

- Empathize with users and get insights to solve a problem.
- Define a problem and brainstorm solutions.
- Create an IoT prototype.

- Create a Business Model Canvas.
- Present the solution to the judging panel and demo the prototypes.

#### Alfonda Dimas Cahaya

#### Fakultas Teknik, Universitas Indonesia

Academy Name

Indonesia

23 Jan 2024

Location

Laura Zuinfana Laura Quintana VP & General Manager, Cisco Networking Academy



Cisco Networking Academy

## IoT Fundamentals: IoT Security

The student has successfully achieved student level credential for completing Cisco Networking Academy® IoT Security course administered by the undersigned instructor. The student was able to proficiently:

- Articulate specific security challenges related to the Internet of Things.
- Perform threat modeling activities on an IoT system at physical, communication and application layers.
- Use Kali Linux penetration testing tools to identify vulnerabilities in IoT systems.
- Apply threat modeling and risk assessment frameworks and recommend threat mitigation measures
- Explain the impact of emerging technologies on IoT Security.

## Alfonda Dimas Cahaya

## Fakultas Teknik, Universitas Indonesia

Indonesia Location

14 Dec 2023

Date

Laura Juinfana Laura Quintana VP & General Manager, Cisco Networking Academy

# **SERTIFIKAT**

No. 01/TRILOGI/FSTD/TI/IX/2024

Diberikan Kepada

Alfonda Dimas Cahaya

Telah menyelesaikan kegiatan magang skema riset dan kolaboratif di Program Studi Teknik Informatika Universitas Trilogi, terhitung dari Mei sampai dengan Agustus 2024

Dengan hasil "Sangat Baik"

03 September 2024

Ir. Yaddarabullah, M.Kom, Asean Eng

Ka. Prodi Teknik Informatika