



Certificate of Achievement

Juanita Downey

has completed the following course:

ARTIFICIAL INTELLIGENCE (AI) FOR EARTH MONITORING
EUMETSAT, EUROPEAN CENTRE FOR MEDIUM-RANGE WEATHER FORECASTS (ECMWF), MERCATOR
OCEAN INTERNATIONAL (MOI) AND EUROPEAN ENVIRONMENT AGENCY (EEA)

This online course introduced the EU's Copernicus Programme, explored how artificial intelligence and machine learning technologies are helping to advance Earth monitoring, and provided hands on tutorials for using AI algorithms to analyse Earth observation data using Python on the WEkEO platform.

6 weeks, 3 hours per week



Dr Mark Higgins

Training Manager, Educator and Meteorologist at EUMETSAT
EUMETSAT



Funded by



The person named on this certificate has completed the activities in the attached transcript. For more information about Certificates of Achievement and the effort required to become eligible, visit futurelearn.com/proof-of-learning/certificate-of-achievement.



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92%
OVERALL
SCORE

This course introduced the European Union's Copernicus Programme, the data it produces and the potential of artificial Intelligence (AI). It explored the types of AI, machine learning, and deep learning algorithms. It looked at practical, real-world examples of using AI for Earth monitoring in the areas of ocean, land, atmosphere, and climate. It also provided hands on tutorials for using AI algorithms to analyse Earth observation data, using Python, in Jupyter Notebooks on the WEkEO platform.

STUDY REQUIREMENT

6 weeks, 3 hours per week

LEARNING OUTCOMES

- Recognise the importance of satellite earth observation (EO) and the EU Copernicus Programme
- Understand AI and Machine Learning concepts and how we use them with EO
- Access open and free EO data using the WEkEO platform
- Explore working examples of using AI and machine learning techniques with Copernicus data and services for each of the 4 themed weeks; Land, Ocean, Atmosphere and Climate.

SYLLABUS

- An introduction to artificial intelligence (AI) and machine learning (ML) in the EU Copernicus Programme.
- Accessing Earth observation data and working with it through the WEkEO platform
- An overview of AI and ML types, technology, and terminology.
- How AI and ML are used in various EO applications

- Hands-on learning using the Python programming language and Jupyter Notebooks to process and analyse EO data using ML