



Northwestern University

Oct 13, 2021

Afnan

has successfully completed

Fundamentals of Digital Image and Video Processing

an online non-credit course authorized by Northwestern University and offered through
Coursera

A handwritten signature in black ink, appearing to read "Joseph Cummings".

Joseph Cummings Professor,
Department of Electrical Engineering and Computer Science,
Northwestern University

COURSE CERTIFICATE



Verify at coursera.org/verify/Q2JWA54WU6EL

Coursera has confirmed the identity of this individual and their
participation in the course.



Oct 22, 2021

Afnan

has successfully completed

Neural Networks and Deep Learning

an online non-credit course authorized by DeepLearning.AI and offered through Coursera

A handwritten signature in blue ink that reads 'Andrew Ng'.

Andrew Ng, Founder, DeepLearning.AI & Co-founder, Coursera
Kian Katanforoosh, Co-founder, Workera
Younes Bensouda Mourri, Instructor of AI, Stanford University

COURSE
CERTIFICATE



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Coursera has confirmed the identity of this individual and their participation in the course.



Dec 21, 2021

Afnan

has successfully completed

Convolutional Neural Networks

an online non-credit course authorized by DeepLearning.AI and offered through Coursera

A blue ink signature of Andrew Ng.

Andrew Ng, Founder, DeepLearning.AI & Co-founder, Coursera
Kian Katanforoosh, Co-founder, Workera
Younes Bensouda Mourri, Instructor of AI, Stanford University

COURSE
CERTIFICATE



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Coursera has confirmed the identity of this individual and their participation in the course.



Oct 31, 2021

Afnan

has successfully completed

Improving Deep Neural Networks: Hyperparameter Tuning, Regularization and Optimization

an online non-credit course authorized by DeepLearning.AI and offered through Coursera

A blue ink signature of Andrew Ng.

Andrew Ng, Founder, DeepLearning.AI & Co-founder, Coursera
Kian Katanforoosh, Co-founder, Workera
Younes Bensouda Mourri, Instructor of AI, Stanford University

**COURSE
CERTIFICATE**



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Oct 23, 2021

Afnan

has successfully completed

Visualizing Filters of a CNN using TensorFlow

an online non-credit course authorized by Coursera Project Network and offered through Coursera

A handwritten signature in black ink, appearing to read "Amit Yadav".

Amit Yadav
Instructor
Machine Learning and Data Science

COURSE CERTIFICATE



Verify at coursera.org/verify/RGEP9AD2R9NA

Coursera has confirmed the identity of this individual and their participation in the course.

coursera
project
network

Oct 24, 2021

Afnan

has successfully completed

Creating Multi Task Models With Keras

an online non-credit course authorized by Coursera Project Network and offered through
Coursera



Amit Yadav
Instructor
Machine Learning and Data Science

**COURSE
CERTIFICATE**



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Coursera has confirmed the identity of this individual and their
participation in the course.



Dec 21, 2021

Afnan

has successfully completed

Build Basic Generative Adversarial Networks (GANs)

an online non-credit course authorized by DeepLearning.AI and offered through Coursera

A handwritten signature in black ink, likely belonging to Sharon Zhou, the course instructor.

Sharon Zhou, Course Instructor, DeepLearning.AI
Eda Zhou, Curriculum Developer, DeepLearning.AI
Eric Zelikman, Curriculum Developer, DeepLearning.AI

COURSE
CERTIFICATE



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participation in the course.

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Oct 28, 2021

Afnan

has successfully completed

Tweet Emotion Recognition with TensorFlow

an online non-credit project authorized by Coursera Project Network and offered through
Coursera



Amit Yadav
Instructor
Machine Learning and Data Science

PROJECT
CERTIFICATE



Verify at:
<https://coursera.org/verify/VM35VZBY2PEX>

Coursera has confirmed the identity of this individual and their
participation in the project.