

Professional Certificate



This is to certify that

Sergii Kavun

successfully completed all courses and
received passing grades for a Professional
Certificate in

IBM Deep Learning

a program offered by IBM, in collaboration with
edX.

A handwritten signature of Rav Ahuja.

Rav Ahuja

Chief Program Manager
Skills Network, IBM
IBM



PROFESSIONAL CERTIFICATE
Issued May 2021

VALID CERTIFICATE ID
be8050e045484db19c134babda35189e

Professional Certificate



This is to certify that

Sergii Kavun

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Certificate in

Deep Learning

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edX.

A handwritten signature in black ink.

Rav Ahuja

Chief Program Manager
Skills Network, IBM
IBM



PROFESSIONAL CERTIFICATE
Issued May 2021

VALID CERTIFICATE ID
8f5d702e3e004f0498dc55b4e8201998



5 Courses

Neural Networks and Deep Learning

Improving Deep Neural Networks: Hyperparameter tuning, Regularization and Optimization

Structuring Machine Learning Projects

Convolutional Neural Networks

Sequence Models



07/03/2020

Sergii V. Kavun

has successfully completed the online, non-credit Specialization

Deep Learning

The Deep Learning Specialization is designed to prepare learners to participate in the development of cutting-edge AI technology, and to understand the capability, the challenges, and the consequences of the rise of deep learning. Through five interconnected courses, learners develop a profound knowledge of the hottest AI algorithms, mastering deep learning from its foundations (neural networks) to its industry applications (Computer Vision, Natural Language Processing, Speech Recognition, etc.).

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

Adjunct Professor
Andrew Ng
Computer Science

The online specialization named in this certificate may draw on material from courses taught on-campus, but the included courses are not equivalent to on-campus courses. Participation in this online specialization does not constitute enrollment at this university. This certificate does not confer a University grade, course credit or degree, and it does not verify the identity of the learner.

Verify this certificate at:
coursera.org/verify/specialization/KL6QMUN8UCHZ



4 Courses

Fundamentals of Scalable Data Science

Advanced Machine Learning and Signal Processing

Applied AI with DeepLearning

Advanced Data Science Capstone



06/06/2020

Sergii V. Kavun

has successfully completed the online, non-credit Specialization

Advanced Data Science with IBM

As a coursera certified specialization completer you will have a proven deep understanding on massive parallel data processing, data exploration and visualization, and advanced machine learning & deep learning. You'll understand the mathematical foundations behind all machine learning & deep learning algorithms. You can apply knowledge in practical use cases, justify architectural decisions, understand the characteristics of different algorithms, frameworks & technologies & how they impact model performance & scalability.

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A handwritten signature in black ink.

Tom Hanlon
Training Director
Skymind

A handwritten signature in black ink.

Ilya Rasin
Data Scientist
IBM Watson Health

A handwritten signature in black ink.

Romeo Kienzler
Chief Data Scientist
IBM Watson IoT

A handwritten signature in black ink.

Max Pumperla
Deep Learning Engineer

A handwritten signature in black ink.

Niketan Pansare
Senior Software
Engineer
IBM Research

A handwritten signature in black ink.

Nikolay Manchev
Senior Data Scientist
IBM EMEA Data Science
(2015-2019)

Verify this certificate at:
coursera.org/verify/specialization/87ANA7JP44W



5 Courses

The Data Scientist's Toolbox
R Programming
Getting and Cleaning Data
Exploratory Data Analysis
Reproducible Research



04/30/2020

Sergii V. Kavun

has successfully completed the online, non-credit Specialization

Data Science: Foundations using R

The Data Science Specialization covers foundational concepts and tools for the data science pipeline. Successful participants learn how to use the tools of the trade, think analytically about complex problems, manage large data sets, create visualizations, and publish reproducible analyses. This certificate does not confer academic credit toward a degree or official status at the Johns Hopkins University.


Jeff Leek, PhD; Roger Peng, PhD; Brian Caffo, PhD

Department of Biostatistics
Johns Hopkins Bloomberg School of Public Health

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Verify this certificate at:
coursera.org/verify/specialization/45BU2YSQKS78



4 Courses

Introduction to TensorFlow for Artificial Intelligence, Machine Learning, and Deep Learning

Convolutional Neural Networks in TensorFlow

Natural Language Processing in TensorFlow

Sequences, Time Series and Prediction



07/19/2020

Sergii V. Kavun

has successfully completed the online, non-credit Specialization

TensorFlow in Practice

In this specialization, you got a grounding in what you need to get started with TensorFlow: In Practice. The goal was to help you take the next steps, such as going deeper into understanding Machine Learning and the practice of understanding loss functions, optimizers and more, or perhaps you want to know more about neural networks and the different types of layers, from convolutions to recurrent or LSTM. Now that you have used some of them and seen the impact of different layer types in practice, you can go forward equipped to go deeper!

A handwritten signature in blue ink that reads "John Jay Laurence Moroney".

Laurence Moroney is an AI Advocate at Google Research

The online specialization named in this certificate may draw on material from courses taught on-campus, but the included courses are not equivalent to on-campus courses. Participation in this online specialization does not constitute enrollment at this university. This certificate does not confer a University grade, course credit or degree, and it does not verify the identity of the learner.

Verify this certificate at:
coursera.org/verify/specialization/U3WXDPAMZA4F



Курсы по дисциплине "4"

**Browser-based Models with
TensorFlow.js**

**Device-based Models with
TensorFlow Lite**

**Data Pipelines with
TensorFlow Data Services**

**Advanced Deployment
Scenarios with TensorFlow**



15.11.2020

Sergii V. Kavun

Учащийся успешно прошел онлайн-специализацию без права на засчетные единицы

TensorFlow: Data and Deployment

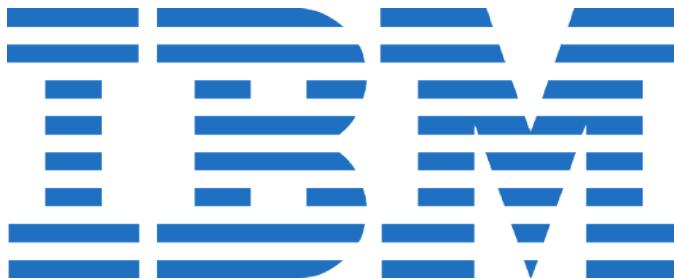
In this specialization, you continued to develop your understanding of machine learning with TensorFlow: Data and Deployment. You have gone beyond basic modeling and learned how to train and run your models within a browser, optimize machine learning models for mobile devices, and create effective data pipelines with TensorFlow Data Services. Now that you've learned the various ways to deploy your models, you're well-prepared to take your models into the hands of real people on all kinds of devices!

A stylized, handwritten signature of the name "Laurence Moroney".

Laurence Moroney
Lead AI Advocate
Google

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Подтвердить сертификат:
coursera.org/verify/specialization/A7ECHWA9J8GE



06/06/2020

Sergii V. Kavun

has successfully completed

Advanced Data Science Capstone

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

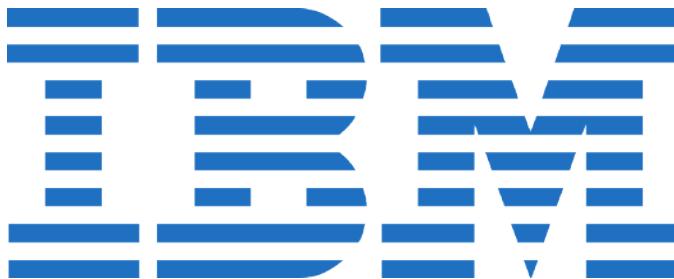
A handwritten signature in black ink that appears to read "R.K." followed by a cursive surname.

Romeo Kienzler
Chief Data Scientist
IBM Watson IoT

COURSE CERTIFICATE



Verify at coursera.org/verify/GAUSZ3MCQQGB
Coursera has confirmed the identity of this individual and
their participation in the course.



05/26/2020

Sergii V. Kavun

has successfully completed

Advanced Machine Learning and Signal Processing

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

Romeo Kienzler
Chief Data Scientist
IBM Watson IoT

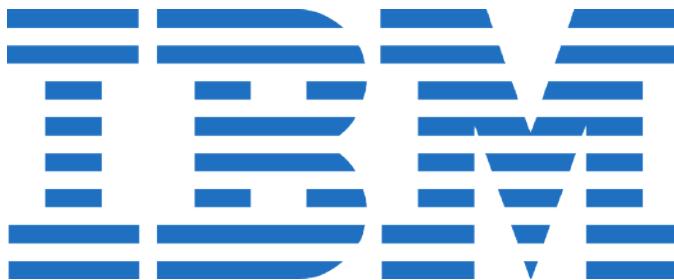
Nikolay Manchev
Senior Data Scientist
IBM EMEA Data Science (2015-2019)

COURSE CERTIFICATE



Verify at coursera.org/verify/5VMXA2VD52YJ

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



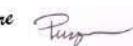
05/30/2020

Sergii V. Kavun

has successfully completed

Applied AI with DeepLearning

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

Romeo Kienzler, Niketan Pansare, Max Pumperla

COURSE CERTIFICATE



Verify at coursera.org/verify/RXRCE5Q8GVCZ

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



05/21/2020

Sergii V. Kavun

has successfully completed

Fundamentals of Scalable Data Science

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

Romeo Kienzler
Chief Data Scientist
IBM Watson IoT

COURSE CERTIFICATE



Verify at coursera.org/verify/YHMQ7WJZ68HE
Coursera has confirmed the identity of this individual and
their participation in the course.



deeplearning.ai

07/10/2020

Sergii V. Kavun

has successfully completed

Convolutional Neural Networks in TensorFlow

an online non-credit course authorized by deeplearning.ai and offered through
Coursera



A handwritten signature in blue ink that reads "Laurence Moroney".

Laurence Moroney
Staff AI Advocate
Google Brain

COURSE CERTIFICATE



Verify at coursera.org/verify/9SAP2UQ489RQ

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



06/28/2020

Sergii V. Kavun

has successfully completed

Convolutional Neural Networks

an online non-credit course authorized by deeplearning.ai and offered through
Coursera

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

Adjunct Professor Andrew Ng
Computer Science

COURSE CERTIFICATE



Verify at coursera.org/verify/79SQSSP6Q2NB

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



deeplearning.ai

07/15/2020

Sergii V. Kavun

has successfully completed

Natural Language Processing in TensorFlow

an online non-credit course authorized by deeplearning.ai and offered through
Coursera



A handwritten signature in blue ink that reads "Laurence Moroney".

Laurence Moroney
Staff AI Advocate
Google Brain

COURSE CERTIFICATE



Verify at coursera.org/verify/5WEKTYLSXDNV
Coursera has confirmed the identity of this individual and
their participation in the course.



07/03/2020

Sergii V. Kavun

has successfully completed

Sequence Models

an online non-credit course authorized by deeplearning.ai and offered through
Coursera

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

Adjunct Professor Andrew Ng
Computer Science

COURSE CERTIFICATE



Verify at coursera.org/verify/QRLEDL33X9XF

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



07/19/2020

Sergii V. Kavun

has successfully completed

Sequences, Time Series and Prediction

an online non-credit course authorized by deeplearning.ai and offered through Coursera



A handwritten signature in blue ink that reads "Laurence Moroney".

Laurence Moroney
Staff AI Advocate
Google Brain

COURSE CERTIFICATE



Verify at coursera.org/verify/EC7LMR2M758J

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



06/21/2020

Sergii V. Kavun

has successfully completed

Structuring Machine Learning Projects

an online non-credit course authorized by deeplearning.ai and offered through Coursera

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

Adjunct Professor Andrew Ng
Computer Science

COURSE CERTIFICATE



Verify at coursera.org/verify/Q2E5YLRN9MEH
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their participation in the course.



06/19/2020

Sergii V. Kavun

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 handwritten signature in blue ink that appears to read "Andrew Ng".

Adjunct Professor Andrew Ng
Computer Science

COURSE CERTIFICATE



Verify at coursera.org/verify/BHWAMLNAJ97

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



07/07/2020

Sergii V. Kavun

has successfully completed

Introduction to TensorFlow for Artificial Intelligence, Machine Learning, and Deep Learning

an online non-credit course authorized by deeplearning.ai and offered through Coursera



A handwritten signature in blue ink that reads "Laurence Moroney".

Laurence Moroney
Staff AI Advocate
Google Brain

COURSE CERTIFICATE



Verify at coursera.org/verify/JHBN2MTJTSVF

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



deeplearning.ai

06/16/2020

Sergii V. Kavun

has successfully completed

Neural Networks and Deep Learning

an online non-credit course authorized by deeplearning.ai and offered through
Coursera



Adjunct Professor Andrew Ng
Computer Science

COURSE CERTIFICATE



Verify at coursera.org/verify/8HH7MPQ6JE64

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



deeplearning.ai

08/16/2020

Sergii V. Kavun

has successfully completed

Browser-based Models with TensorFlow.js

an online non-credit course authorized by deeplearning.ai and offered through
Coursera



A handwritten signature in blue ink that reads "Laurence Moroney".

Laurence Moroney
Staff AI Advocate
Google Brain

COURSE CERTIFICATE



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



deeplearning.ai

Oct 18, 2020

Sergii V. Kavun

has successfully completed

Data Pipelines with TensorFlow Data Services

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

Laurence Moroney

Laurence Moroney
Staff AI Advocate
Google Brain

COURSE CERTIFICATE



Verify at coursera.org/verify/UWUWCDCNQDJM

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



deeplearning.ai

11.10.2020

Sergii V. Kavun

Учащийся успешно прошел(а) курс

Device-based Models with TensorFlow Lite

онлайн-курс без права на зачетные единицы от университета DeepLearning.AI,
предлагаемый на Coursera

Laurence Moroney

Laurence Moroney
Staff AI Advocate
Google Brain

COURSE CERTIFICATE



Подтвердить: coursera.org/verify/TSMZXLFJ2FZ

Coursera подтвердила личность этого человека и его
участие в курсе.



deeplearning.ai

Nov 15, 2020

Sergii V. Kavun

has successfully completed

Advanced Deployment Scenarios with TensorFlow

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

Laurence Moroney

Laurence Moroney
Lead AI Advocate
Google

COURSE
CERTIFICATE



Verify at coursera.org/verify/GACZLPM9DRHM

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



JOHNS HOPKINS
UNIVERSITY

04/23/2020

Sergii V. Kavun

has successfully completed

Exploratory Data Analysis

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



A handwritten signature in black ink, appearing to read "Jeff Leek, Roger Peng, Brian Caffo".

Jeff Leek, PhD; Roger Peng, PhD; Brian Caffo, PhD
Department of Biostatistics
Johns Hopkins Bloomberg School of Public Health

COURSE CERTIFICATE



Verify at coursera.org/verify/NXPCK8T6JMEQ

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their participation in the course.



JOHNS HOPKINS
UNIVERSITY

04/16/2020

Sergii V. Kavun

has successfully completed

Getting and Cleaning Data

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



Jeff Leek, PhD; Roger Peng, PhD; Brian Caffo, PhD
Department of Biostatistics
Johns Hopkins Bloomberg School of Public Health

COURSE CERTIFICATE



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



JOHNS HOPKINS
UNIVERSITY

04/10/2020

Sergii V. Kavun

has successfully completed

R Programming

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

Handwritten signatures of Jeff Leek, Roger Peng, and Brian Caffo in black ink.

Jeff Leek, PhD; Roger Peng, PhD; Brian Caffo, PhD
Department of Biostatistics
Johns Hopkins Bloomberg School of Public Health

COURSE CERTIFICATE



Verify at coursera.org/verify/DBPCSLNBFU4L

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



JOHNS HOPKINS
UNIVERSITY

04/30/2020

Sergii V. Kavun

has successfully completed

Reproducible Research

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



A handwritten signature in black ink, appearing to read "Jeff Leek, Roger Peng, Brian Caffo".

Jeff Leek, PhD; Roger Peng, PhD; Brian Caffo, PhD
Department of Biostatistics
Johns Hopkins Bloomberg School of Public Health

COURSE CERTIFICATE



Verify at coursera.org/verify/FLEMYMQ2WJMR

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



JOHNS HOPKINS
UNIVERSITY

03/30/2020

Sergii V. Kavun

has successfully completed

The Data Scientist's Toolbox

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

A handwritten signature in black ink, appearing to read "Jeff Leek, Roger Peng, Brian Caffo".

Jeff Leek, PhD; Roger Peng, PhD; Brian Caffo, PhD
Department of Biostatistics
Johns Hopkins Bloomberg School of Public Health

COURSE CERTIFICATE



Verify at coursera.org/verify/UMGEVJ7QMGS

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



STATEMENT OF ACCOMPLISHMENT

#14051376

HAS BEEN AWARDED TO

Sergii Kavun

FOR SUCCESSFULLY COMPLETING

Machine Learning in the Tidyverse

COMPLETED ON

May 18, 2020



DataCamp



STATEMENT OF ACCOMPLISHMENT

#13921613

HAS BEEN AWARDED TO

Sergii Kavun

FOR SUCCESSFULLY COMPLETING

Supervised Learning in R: Classification

COMPLETED ON

May 15, 2020



DataCamp



STATEMENT OF ACCOMPLISHMENT

#13983699

HAS BEEN AWARDED TO

Sergii Kavun

FOR SUCCESSFULLY COMPLETING

Supervised Learning in R: Regression

COMPLETED ON

May 17, 2020



DataCamp



STATEMENT OF ACCOMPLISHMENT

#14044250

HAS BEEN AWARDED TO

Sergii Kavun

FOR SUCCESSFULLY COMPLETING

Unsupervised Learning in R

COMPLETED ON

May 17, 2020



DataCamp



08/17/2020

Sergii V. Kavun

has successfully completed

Data Visualization and Communication with Tableau

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

A handwritten signature in black ink.

Daniel Egger
Executive in Residence and Director,
Center for Quantitative Modeling
Pratt School of Engineering

A handwritten signature in black ink.

Dr. Jana Schaich Borg
Assistant Research Professor
Social Science Research Institute

COURSE CERTIFICATE



Verify at coursera.org/verify/XGEFSYYBPWAF

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

Verified Certificate

This is to certify that

Sergii Kavun

successfully completed and received a passing grade in

DL0320EN: Applied Deep Learning Capstone Project

a course of study offered by IBM, an online learning initiative of IBM.




Joseph Santarcangelo
Data Scientist
IBM Developer Skills Network



Verified Certificate
Issued May 20, 2021

Valid Certificate ID
[44cf66fb41e1447cb3c3629af1afc7ba](https://courses.edx.org/certificates/44cf66fb41e1447cb3c3629af1afc7ba)

Verified Certificate



Saeed A.

Saeed Aghabozorgi
PhD, Sr. Data Scientist
IBM

This is to certify that

Sergii Kavun

successfully completed and received a passing grade in

DL0122EN: Using GPUs to Scale and Speed-up Deep Learning

a course of study offered by IBM, an online learning initiative of IBM.



Verified Certificate
Issued April 30, 2021

Valid Certificate ID
[be76b69505b34bfa909f6b154e63ebf5](https://courses.edx.org/certificates/be76b69505b34bfa909f6b154e63ebf5)

Verified Certificate

*Saeed A.*

Saeed Aghabozorgi, PhD
Senior Data Scientist

IBM

Romeo Kienzler
Chief Data Scientist, Course Lead

IBM

This is to certify that

Sergii Kavun

successfully completed and received a passing grade in

DL0120EN: Deep Learning with Tensorflow

a course of study offered by IBM, an online learning initiative of IBM.



Verified Certificate
Issued April 30, 2021

Valid Certificate ID
0d78a5a9e540456fb70a372850f00113

Verified Certificate



This is to certify that

Sergii Kavun

successfully completed and received a passing grade in

DL0110EN: Deep Learning with Python and PyTorch

a course of study offered by IBM, an online learning initiative of IBM.



Verified Certificate
Issued April 30, 2021

Valid Certificate ID
7e7a0bae5ecf43b1ab178022ef537219

Joseph Santarcangelo
PhD., Data Scientist

IBM

Verified Certificate



This is to certify that

Sergii Kavun

successfully completed and received a passing grade in

DL0101EN: Deep Learning Fundamentals with Keras

a course of study offered by IBM, an online learning initiative of IBM.



Verified Certificate
Issued April 30, 2021

Valid Certificate ID
[5d3c7ef5d53a47ccb2e6d0f63fb415db](https://courses.edx.org/certificates/5d3c7ef5d53a47ccb2e6d0f63fb415db)

Alex Akison, Ph.D.

Data Scientist

IBM Developer Skills Network

Verified Certificate



This is to certify that

Sergii Kavun

successfully completed and received a passing grade in

ML0210EN: PyTorch Basics for Machine Learning

a course of study offered by IBM, an online learning initiative of IBM.



Verified Certificate
Issued April 30, 2021

Valid Certificate ID
[c623a9196cff42709c981aeabf9ec527](https://courses.edx.org/certificates/c623a9196cff42709c981aeabf9ec527)

Joseph Santarcangelo
PhD., Data Scientist

IBM

Open badge for the Inria "Machine learning in Python with scikit-learn" course



Badge délivré à

Sergii Kavun

Predictive modeling is a pillar of modern data science. In this field, scikit-learn is a central tool: it is easily accessible, yet powerful, and naturally dovetails in the wider ecosystem of data-science tools based on the Python programming language. This course is an in-depth introduction to predictive modeling with scikit-learn. Step-by-step and didactic lessons introduce the fundamental methodological and software tools of machine learning, and is as such a stepping stone to more advanced challenges in artificial intelligence, text mining, or data science. The course is more than a cookbook: it teaches the participants to be critical about each step of the design of a predictive modeling pipeline: from choices in data preprocessing, to choosing models, gaining insights on their failure modes and interpreting their predictions. The training is essentially practical, focusing on examples of applications with code executed by the participants. The authors of the course are :
- Arturo Amor - Inria, scikit-learn engineer - Loïc Estève - Inria, scikit-learn core developer - Olivier Grisel - Inria, scikit-learn core developer - Guillaume Lemaître - Inria, scikit-learn core developer -

Gaël Varoquaux - Inria, scikit-learn project manager The duration of the course is approximately 36 hours.

#Inria #MachineLearning #Python #scikit-learn

Délivré le 2023-01-19

Émetteur



France Université Numérique

contact@fun-mooc.fr

<https://www.france-universite-numerique.fr/>

Se former en liberté ! Des cours en ligne pour découvrir, apprendre, progresser et réussir.

Nous fédérons un réseau d'universités, d'écoles, d'instituts de recherche, d'agences gouvernementales, d'entreprises edtech et de contributeurs qui se consacrent à la construction de services numériques souverains pour l'éducation

Critère

Open Badge obtention criteria:

Students' work in the course is assessed through quizzes following the lessons and programming exercises at the end of each module. An Open Badge is issued to the participants who obtained a final total score of at least 60% before the deadline.