



**6 Courses**

Machine Learning with Python

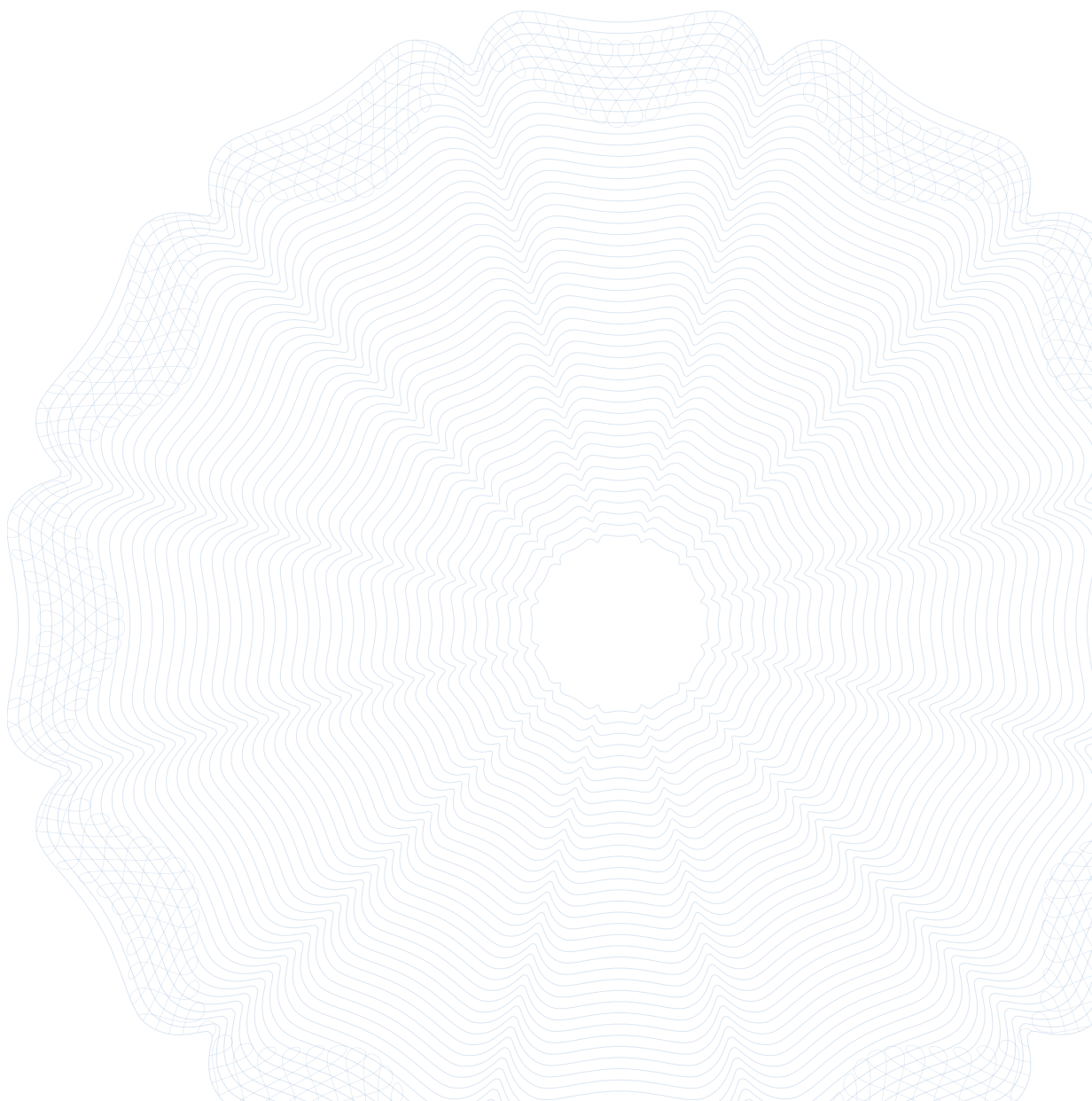
Scalable Machine Learning on  
Big Data using Apache Spark

Introduction to Deep Learning &  
Neural Networks with Keras

Deep Neural Networks with  
PyTorch

Building Deep Learning Models  
with TensorFlow

AI Capstone Project with Deep  
Learning



04/20/2020

## Rafael Michelin Sanches Ferreira de Moraes

has successfully completed the online, non-credit Professional Certificate

# IBM AI Engineering

Learners who have completed this 6 course Professional Certificate have a practical understanding of Machine Learning (ML) & Deep Learning (DL). They have technical skills to start a career in AI Engineering, and can:

- Implement ML algorithms including Classification, Regression, Clustering, and Dimensional Reduction using scipy & scikitlearn
- Perform ML on Big Data and deploy ML Algorithms and Pipelines on Apache Spark
- Demonstrate understanding of Deep Learning models such as autoencoders, restricted Boltzmann machines, convolutional networks, recursive neural networks, and recurrent networks
- Build deep learning models and neural networks using Keras, PyTorch and Tensorflow libraries
- Demonstrate ability to present and communicate outcomes of deep learning projects

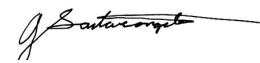
The online specialization named in this certificate may draw on material from courses taught on-campus, but the included courses are not equivalent to on-campus courses. Participation in this online specialization does not constitute enrollment at this university. This certificate does not confer a University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



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