



5 Courses

Introduction to Deep Learning & Neural Networks with Keras

Deep Learning with Keras and Tensorflow

Introduction to Neural Networks and PyTorch

Deep Learning with PyTorch

AI Capstone Project with Deep Learning



Apr 2, 2025

**Armin Mitchell**

has successfully completed the online, non-credit Professional Certificate

# IBM Deep Learning with PyTorch, Keras and Tensorflow

This certificate holder can build, train, and deploy deep learning models, including neural networks. They can create models for image recognition, natural language processing (NLP), and recommendation systems. Plus, they can use PyTorch and SoftMax regression and use activation functions. They can also create custom layers and models using Keras, integrate Keras with TensorFlow 2, and develop advanced convolutional neural networks (CNNs). They can develop transformer models for sequential data and time series predictions and apply unsupervised learning concepts and reinforcement learning. Plus, they have demonstrated their ability to create deep learning pipelines, improve models, and apply deep learning to real world challenges.

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.

Alex Aklson, Jeremy Nilmeier, Joseph Santarcangelo  
Ricky Shi, Romeo Kienzler, Samaya Madhavan  
Wojciech 'Victor' Fulmyk

Verify this certificate at:

<https://coursera.org/verify/professional/al-cert/ET9I5ZQ7MZ93>