

VERIFIED

CERTIFICATE *of* ACHIEVEMENT



A handwritten signature in black ink, appearing to read "J. Santarcangelo".

Joseph Santarcangelo
Data Scientist

IBM Developer Skills Network

This is to certify that

Jacob Miller

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 through edX.



VERIFIED CERTIFICATE
Issued November 24, 2018

VALID CERTIFICATE ID
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