



This is to certify that

Joseph Santarcangelo Data Scientist

IBM

shantanu potdar

successfully completed and received a passing grade in

PY0101EN: Python Basics for Data Science

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



Verified Certificate Issued October 3, 2021 Valid Certificate ID 4a49ba015e9940ae8a28231a6844bc12