



Aug 15, 2023

Ghufran Barcha

has successfully completed

Data Analysis with Python

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

A handwritten signature in black ink, reading "Joseph Santarcangelo".

Joseph Santarcangelo
Senior Data Scientist
IBM

**COURSE
CERTIFICATE**



Verify at:
<https://coursera.org/verify/PJ76B5ZUQLSU>

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