



Nov 4, 2023

**Ravi Mandal**

has successfully completed

**What is Data Science?**

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

A handwritten signature in black ink, appearing to read "Rav Ahuja".

Rav Ahuja  
Global Program Director,  
Skills Network

A handwritten signature in black ink, appearing to read "Alex Akson".

Alex Akson, Ph.D.  
Data Scientist

**COURSE  
CERTIFICATE**



Verify at:  
<https://coursera.org/verify/4SB48ZBVCFTJ>

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



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**Data Science Methodology**

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

A handwritten signature in black ink, appearing to read "Alex Akson", written over a horizontal dotted line.

Alex Akson, Ph.D.  
Data Scientist

A handwritten signature in black ink, appearing to read "Polong Lin", written over a horizontal dotted line.

Polong Lin  
Data Scientist, IBM

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**Tools for Data Science**

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Three handwritten signatures in black ink, stacked vertically, over a dotted line.

Maureen McElaney  
Romeo Kienzler  
Svetlana Levitan

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## Python Project for Data Science

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

*Azim Hirjani*

Azim Hirjani  
Cognitive Data Scientist

*Joseph Santarcangelo*

Joseph Santarcangelo  
Senior Data Scientist  
IBM

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