## VERIFICATE of ACHIEVEMENT

This is to certify that

## James Coen

successfully completed and received a passing grade in

## CS110x: Big Data Analysis with Apache Spark

a course of study offered by BerkeleyX, an online learning initiative of University of California, Berkeley through edX.



VERIFIED CERTIFICATE ISsued September 16, 2016

VALID CERTIFICATE ID b141635cd23b4253a67e6f2f6810a5df

## Berkeley

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Anthony D. Joseph

Professor in Electrical Engineering and Computer Science University of California, Berkeley



Diana Wu

Executive Director, Berkeley Resource Center for Online Education University of California, Berkeley

https://courses.edx.org/certificates/b141635cd23b4253a67e6f2f6810a5df

2/16/2017