

# Verified Certificate

This is to certify that

**James McMurray**

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.

# Berkeley



**Anthony D. Joseph**

Professor in Electrical Engineering and Computer  
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**Diana Wu**

**Diana Wu**

Executive Director,  
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*University of California, Berkeley*



**Verified Certificate**

Issued September 14, 2016

**Valid Certificate ID**

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