Verified Certificate

ColumbiaX

lath len Kileaun

Kathy McKeown

Director of the Data Science Institute Henry and Gertrude Rothschild Professor of Computer Science

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Patricia Culligan

Associate Director of the Data Science Institute Professor of Civil Engineering Columbia University

a course of study offered by ColumbiaX, an online learning

initiative of Columbia University.

DS102X: Machine Learning for Data Science and

Analytics

successfully completed and received a passing grade in

Dawit Shibabaw Bogale

This is to certify that

Garud lyengar

Operations Research, Chair of the Department Professor of Industrial Engineering and

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Issued April 12, 2022

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