Verified Certificate

This is to certify that

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

Solumbia University

P. G. Callesi

Patricia Culligan

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

Garud lyengar

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

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

Columbia University

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