

PROFESSIONAL CERTIFICATE

This is to certify that

James Portolese

successfully completed all courses and received passing grades for a
Professional Certificate in

Data Science

a program offered by HarvardX, in collaboration with edX.



PROFESSIONAL CERTIFICATE
Issued January 2020

VALID CERTIFICATE ID
4a05f4822403473db8993999e8a97a0f

HarvardX

A handwritten signature in black ink, appearing to read 'Rafael Irizarry'.

Rafael Irizarry
Professor of Biostatistics
Harvard T.H. Chan School of Public Health