

**10 Courses** 

The Data Scientist's Toolbox
R Programming
Getting and Cleaning Data
Exploratory Data Analysis
Reproducible Research
Statistical Inference
Regression Models
Practical Machine Learning
Developing Data Products
Data Science Capstone



Oct 18, 2021

## **James Edward Kowalik**

has successfully completed the online, non-credit Specialization

## **Data Science**

The Data Science Specialization covers the concepts and tools for an entire data science pipeline. Successful participants learn how to use the tools of the trade, think analytically about complex problems, manage large data sets, deploy statistical principles, create visualizations, build and evaluate machine learning algorithms, publish reproducible analyses, and develop data products. This certificate does not confer academic credit toward a degree or official status at the Johns Hopkins University.

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Jeff Leek, PhD; Roger Peng, PhD; Brian Caffo, PhD Department of Biostatistics Johns Hopkins Bloomberg School of Public Health

The online specialization named in this certificate may draw on material from courses taught on-campus, but the included courses are not equivalent to on-campus courses. Participation in this online specialization does not constitute enrollment at this university. This certificate does not confer a University grade, course credit or degree, and it does not verify the identity of the learner.

Verify this certificate at: coursera.org/verify/specialization/TQ37P2J9NC2A