

**5** Courses

The Data Scientist's Toolbox
R Programming
Getting and Cleaning Data
Exploratory Data Analysis
Reproducible Research



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## **NURZHAN SAGADENOV**

has successfully completed the online, non-credit Specialization

## Data Science: Foundations using R

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

JAKE VZ- 8 Run alt

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/NW5EU6X4FGNC