Other Completed Courses		
Machine Leaming	Stanford University	Grade Achieved: 84.79 View Statement of Accomplishmer
Introduction to Data Science	University of Washington	Grade Achieved: 97.3% with Distinction View Statement of Accomplishment  Madd to Profile
The Data Scientist's Toolbox	Johns Hopkins University	Grade Achieved: 101.0% with Distinctio View Statement of Accomplishmer
R Programming	Johns Hopkins University	Grade Achieved: 100.0% with Distinctio View Statement of Accomplishmer  Madd to Profile
Getting and Cleaning Data	Johns Hopkins University	Grade Achieved; 95,0% with Distinction View Statement of Accomplishmen  Add to Profile
Exploratory Data Analysis	Johns Hopkins University	Grade Achieved: 100.0% with Distinction View Statement of Accomplishment  Madd to Profile
Reproducible Research	Johns Hopkins University	Grade Achieved: 98.8% with Distinction View Statement of Accomplishment  Add to Profile
Statistical Inference	Johns Hopkins University	Grade Achieved: 100.0% with Distinctio View Statement of Accomplishmen
Regression Models	Johns Hopkins University	Grade Achieved: 100,0% with Distinctio View Statement of Accomplishmen
Practical Machine Learning	Johns Hopkins University	Grade Achieved: 100.0% with Distinction View Statement of Accomplishment  Madd to Profile
Developing Data Products	Johns Hopkins University	Grade Achieved: 100.0% with Distinction View Statement of Accomplishment



OCTOBER 10, 2014

## Statement of Accomplishment

WITH DISTINCTION

# VENUGOPAL NARAYAN PISHARODY

HAS SUCCESSFULLY COMPLETED THE ONLINE OFFERING OF



#### Introduction to Data Science

This course covered a broad set of topics critical to practical data science: relational databases, MapReduce, NoSQL, selected topics in statistical modeling, selected topics in machine learning, and information visualization, and a variety of algorithmic topics.

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BILL HOWE, PH.D ASSOCIATE DIRECTOR ESCIENCE INSTITUTE

AFFILIATE ASSISTANT PROFESSOR

COMPUTER SCIENCE & ENGINEERING

UNIVERSITY OF WASHINGTON

PLEASE NOTE: THIS STATEMENT DOES NOT AFFIRM THAT THIS STUDENT WAS ENROLLED AS A STUDENT AT AN ACADEMIC INSTITUTION IN ANY WAY. IT DOES NOT CONFER A GRADE; IT DOES NOT CONFER ACADEMIC CREDIT; IT DOES NOT CONFER A DEGREE; AND IT DOES NOT VERIFY THE IDENTITY OF THE STUDENT.



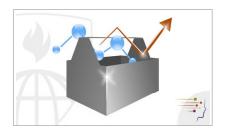
JULY 08, 2014

### Statement of Accomplishment

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#### The Data Scientist's Toolbox

Overview of the data, questions, & tools that data analysts & scientists work with. It is a conceptual introduction to the ideas behind turning data into knowledge as well as a practical introduction to tools like version control, markdown, git, GitHub, R, and RStudio.

JEFFREY LEEK, PHD
DEPARTMENT OF BIOSTATISTICS, JOHNS HOPKINS
BLOOMBERG SCHOOL OF PUBLIC HEALTH

ROGER D. PENG, PHD

DEPARTMENT OF BIOSTATISTICS, JOHNS HOPKINS BLOOMBERG SCHOOL OF PUBLIC HEALTH

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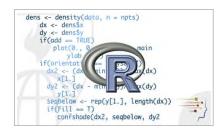
JULY 08, 2014

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#### **R Programming**

This course covers how to use & program in R for effective data analysis. It covers practical issues in statistical computing: programming in R, reading data into R, accessing R packages, writing R functions, debugging, profiling R code, & organizing and commenting R code.

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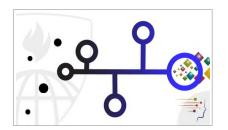
AUGUST 15, 2014

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#### **Getting and Cleaning Data**

This course covers obtaining data from the web, APIs, databases, and colleagues in various formats, as well as the basics of cleaning and "tidying" data. It also covers the components of a complete data set: raw data, processing instructions, codebooks, & processed data.

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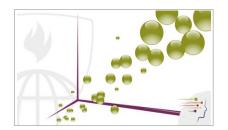
AUGUST 06, 2014

## Statement of Accomplishment

WITH DISTINCTION

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#### **Exploratory Data Analysis**

Covers exploratory data summarization techniques that are applied before modeling to inform development of complex models. Topics include plotting in R, principles of constructing graphics, and common multivariate techniques used for high-dimensional data visualization.

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OCTOBER 06, 2014

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#### Reproducible Research

This course covers how to write a document using R markdown, integrate live R code into a literate statistical program, compile R markdown documents using knitr and related tools, and organize a data analysis so that it is reproducible and accessible to others.

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OCTOBER 09, 2014

## Statement of Accomplishment

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#### **Statistical Inference**

Students receive a broad overview of the goals, assumptions, and modes of statistical inference. Successful students can perform inferential tasks in highly targeted settings and are able to use the skills developed for more complex inferential challenges.

Run Calle

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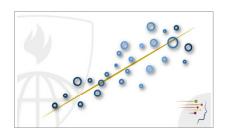
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## Statement of Accomplishment

WITH DISTINCTION

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#### **Regression Models**

Students learn how to fit regression models, interpret coefficients, and investigate residuals and variability. Students also learn to use dummy variables, multivariable adjustment, and extensions to generalized linear models, especially Poisson and logistic regression.

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DEPARTMENT OF BIOSTATISTICS, JOHNS HOPKINS BLOOMBERG SCHOOL OF PUBLIC HEALTH



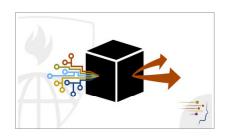
NOVEMBER 04, 2014

## Statement of Accomplishment

WITH DISTINCTION

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#### **Practical Machine Learning**

Upon completion of this course students understand the components of a machine learning algorithm and how to apply multiple basic machine learning tools. Students also learn to apply these tools to build and evaluate predictors on real data.

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DECEMBER 08, 2014

### Statement of Accomplishment

WITH DISTINCTION

## VENUGOPAL NARAYAN PISHARODY

HAS SUCCESSFULLY COMPLETED THE JOHNS HOPKINS UNIVERSITY'S OFFERING OF



#### **Developing Data Products**

This course covers the basics of creating data products using Shiny, R packages, and interactive graphics. The course focuses on the statistical fundamentals of creating a data product that can be used to tell a story about data to a mass audience.

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JEFFREY LEEK, PHD
DEPARTMENT OF BIOSTATISTICS, JOHNS HOPKINS
BLOOMBERG SCHOOL OF PUBLIC HEALTH

# Online Course Statement of Accomplishment

# VENUGOPAL NARAYAN PISHARODY

HAS SUCCESSFULLY COMPLETED A FREE ONLINE OFFERING OF THE FOLLOWING COURSE PROVIDED BY STANFORD UNIVERSITY THROUGH COURSERA INC.



#### **Machine Learning**

Congratulations! You have successfully completed the online Machine Learning course (ml-class.org). To successfully complete the course, students were required to watch lectures, review questions and complete programming assignments.

ASSOCIATE PROFESSOR ANDREW NG COMPUTER SCIENCE DEPARTMENT STANFORD UNIVERSITY