

RegressionModelsNotes

Coursera Course by John Hopkins University

INSTRUCTORS: Dr. Brian Caffo, Dr. Roger D. Peng, Dr. Jeff Leek

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Intro

GitHub Link for Lectures

Course Book

Instructor's Note

Data Science Specialization Community Site

The site is created using GitHub Pages

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Least Squares and Linear Regression

Regression

Introduction to Regression

Introduction to Basic Least Squares

Technical Details

Introductory Data Example

Lesson with `swirl()`: Introduction

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Linear Least Squares

Notation and Background

Linear Least Squares

Linear Least Squares Coding Example

Technical Details

Lesson with `swirl()`: Least Squares Estimation

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Regression to the Mean

Regression to the Mean

Lesson with `swirl()`: Residuals

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Quiz 1

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Linear Regression & Multivariable Regression

Statistical Linear Regression Models

Statistical Linear Regression Models

Interpreting Coefficients

Linear Regression for Prediction

Lesson with `swirl()`: Introduction to Multivariable Regression

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Residuals

Residuals

Residuals, Coding Example

Residual Variance

Lesson with `swirl()`: Residual Variation

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Inference in Regression

Inference in Regression

Coding Example

Prediction

Lesson with `swirl()`: MultiVar Examples

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Quiz 2

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Multivariable Regression, Residuals, & Diagnostics

Multivariable Regression

Multivariable Regression Part 1

Multivariable Regression Part 2

Multivariable Regression Continued

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Multivariable Regression Tips and Tricks

Multivariable Regression Examples Part 1

Multivariable Regression Examples Part 2

Multivariable Regression Examples Part 3

Multivariable Regression Examples Part 4

Lesson with `swirl()`: MultiVar Examples2

Lesson with `swirl()`: MultiVar Examples3

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Adjustment

Adjustment Examples

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Residuals Again

Residuals and Diagnostics Part 1

Residuals and Diagnostics Part 2

Residuals and Diagnostics Part 3

Lesson with `swirl()`: Residuals Diagnostics and Variation

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Model Selection

Model Selection Part 1

Model Selection Part 2

Model Selection Part 3

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Practice Exercise in Regression Modeling

Quiz 3

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Logistic Regression and Poisson Regression

GLMs

Logistic Regression

Logistic Regression Part 1

Logistic Regression Part 2

Logistic Regression Part 3

Lesson with `swirl()`: Variance Inflation Factors

Lesson with `swirl()`: Overfitting and Underfitting

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Poisson Regression

Poisson Regression Part 1

Poisson Regression Part 2

Lesson with `swirl()`: Binary Outcomes

Lesson with `swirl()`: Count Outcomes

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Hodgepodge

Mishmash

Hodgepodge

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Quiz 4

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Course Project

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