301-258-8200 | Sales@PhoenixTS.com | www.PhoenixTS.com

View Full Course Details including Latest Schedule Online

PHOENIX TS

Supervised Machine Learning: Regression and Time-Series Analysis Training

This 2-day course teaches data scientists and analysts how to forecast trends based on multiplle variable and factors. Students will learn how to forecast economic trends, utilization rates, customer demand, as well as a variety of other activities.

BONUS! Cyber Phoenix Subscription Included: All Phoenix TS students receive complimentary ninety (90) day access to the Cyber Phoenix learning platform, which hosts hundreds of expert asynchronous training courses in Cybersecurity, IT, Soft Skills, and Management and more!

Course Overview

This 2-day data science focused training course explores regression and time-series analysis. At the conclusion of this course, students should be able to do the following:

- Build single and multivariate regression models
- Assess statistical significance and validate models for explanatory power and bias
- Use time-series models to identify seasonality patterns and create forecasts for cyclical data

Schedule

Currently, there are no public classes scheduled. Please contact a Phoenix TS Training Consultant to discuss hosting a private class at 301-258-8200.

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Course Outline

Introduction to Regression and Time-Series Analysis

- Commercial applications of regression and time-series analysis
- Linear relationships: slope, y-intercept, variable interactions
- Variance and standard deviation
- Covariance and correlation
- Normal distribution and bell curves

Evaluating Your Model

- Distribution of errors: Q-Q plot, heteroscedasticity
- Multivariate regression
- R- and adjusted R-
- p-values and the t-test
- F-test and F-distribution

Identifying the Most Important Variables

- Multicollinearity test
- Heteroscedasticity test
- Model selection: Akaike Information Criterion
- Polynomial regression
- Confidence intervals

Time-Series Analysis Seasonality

- Moving averages
- Seasonality detection: auto-correlation
- Seasonality: additive vs. multiplicative
- Decomposing seasonal data: trend, level and seasonality
- Multiplicative Holt-Winters exponential smoothing
- Forecasting seasonal trends
- LOcal regrESSion: LOESS

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Regression and Time-Series Analysis Training FAQs

Who should take this course?

This course is intended for professionals who have a good working knowledge of R, work with time-series data and want to create forecasts for future trends, need to model cyclical or seasonal data such as sales, customer volumes, web traffic, employee behaviors, etc.;
need a good background in basic statistics and statistical modeling
or want to stand out as data scientists with advanced predictive modeling and time-series analysis skills .

What is the recommended experience for this course?

Students should have taken the Introduction to Data Science, R, and Visualization course or should have the equivalent knowledge of data manipulation, cleaning and visualization.

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Starting at **$1,500**



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Price Match Guarantee

We'll match any competitor's price quote. Call us at 240-667-7757.

Included in this **Supervised Machine Learning: Regression and Time-Series Analysis Training**

- 4 days instructor-led training
- Supervised Machine Learning: Regression and Time-Series Analysis Training training book
- Take-home code templates
- Course reference guides and cheat sheets for additional suport at home
- Case studies and interactive practice scenarios to help develop problem-solving skills
- Notepad, pen and highlighter
- Variety of bagels, fruits, doughnuts and cereal available at the start of class*
- Tea, coffee and soda available throughout the day*
- Freshly baked cookies every afternoon*