

[View Full Course Details including Latest Schedule Online](#)

Implementing Machine Learning with R

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 three-day training will turn attendees into savvy data analysts with a solid foundation of unsupervised and supervised machine learning techniques. Students will use R to build data models and evaluate them. They will be able to find new patterns in data and predict behavior of new data points. The workshop optimizes learning by integrating practice time and discussion time in class to improve retention and provide individualized support throughout the session.

Implementing Machine Learning with R Course Includes:

- 3 days of instructor-led training
- Class exercises in addition to training instruction
- Courseware books, notepads, pens, highlighters and other materials
- Course retake option
- A second voucher included with full purchase
- Full breakfast with variety of bagels, fruits, yogurt, doughnuts and juice
- Tea, coffee, and soda available throughout the day
- Freshly baked cookies every afternoon – *only at participating locations

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.

Course Outline

Introduction to foundational statistics:

- Basic statistics
- Expected value / standard deviation / variance / covariance
- Statistical tests and significance
- Linear regression
- Single variable regression
- Multiple regression

Best practices for model building:

- Introduction to the model building process
- Splitting data into train/test/validation sets
- Multiple regression – dealing with correlated predictors
- Commercial applications of regression

Regression model evaluation:

- Distribution of errors: Q-Q plot, heteroscedasticity
- Multiple regression
- R² and adjusted R²
- p-values and t-test
- F-test and F-distribution

Implementing clustering and unsupervised machine learning

- What is unsupervised machine learning?
- Introduction to clustering
- k-means clustering on multi-dimensional data
- Evaluating the quality of clustering Pitfalls of clustering

Introduction to classification:

- k-Nearest Neighbors
- Decision trees: gini coefficient and information gain



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- Introduction to random forests
- Confusion matrices, misclassification rates
- Base line errors and lift

Pitfalls and best practices of data science:

- Understanding the limits of your data
- Checking data validity
- Ethical considerations
- Best practices for data analysts

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Starting at **\$1,845**

ATTENTION

For GSA pricing or Contractor quotes call
301-258-8200 – Option 2.

GSA



Price Match Guarantee

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

Included in this **Implementing Machine Learning with R**

- 3 days instructor-led training
- Implementing Machine Learning with R training book
- 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*