Analytics Essentials

ANI_204d | On-Demand | Automation and Insights | Expanded
Course Duration: 4 hours

In the age of Automation and AI, statistics are critical in developing automation capabilities or just understanding how AI works. This course provides an overview of statistics and analytics that are used within the telecom industry. Statistics principles are explored from a definition, functional and specific uses perspective. It starts with an introduction to Data Science Fundamentals. The course concludes with uses within the telecom industry.

Intended Audience

A high-level technical overview to personnel involved in product management, marketing, planning, design, engineering, and operating wireless (4G, 5G) and wireline access networks

Objectives

After completing this course, the student will be able to:

- Understand Descriptive Analysis
- Understand Predictive Analytics
- Understand Linear Regression
- Understand Logistic Regression
- Explore Usecases in telecom

Course Prerequisites

Welcome to AI
Welcome to Machine Learning

Outline

1. Big picture of Analytics
1.1 Types of Analytics
1.2 Landscape of Analytics

2. Descriptive Analytics
2.1 Concepts of Descriptive Analytics
2.2 Demonstration Usecase

3. Predictive Analytics
3.1 Predictive Analytics a subset of AI
Exercise: Review Questions

4. Getting Started with Data
4.1 Data Types
4.2 Measures of Central Tendency
4.3 Measures of Dispersion
4.4 Correlation
4.5 Skew/Symmetry
4.6 Kurtosis

5. Data Terminology in Predictive Analytics
5.1 Understand input and output for ML/DL models
Exercise: Review Questions

6. Process of Predictive Analytics
6.1 Understand each step of the Process
Exercise: Review Questions

7. Visit Models
7.1 Taxonomy of Models
Exercise: Review Questions

8. Linear Regression
8.1 Understand How it works
Exercise: Review Questions

9. Logistic Regression
9.1 Understand How it works
Exercise: Review Questions

10. Use Cases