

Time Series Forecasting

using Python

Duration: 03 days (24 hours)

Course Modules:

- Differentiate between time series data and cross-sectional data.
- Understand the fundamental assumptions of time series data and how to take advantage of them.
- Transforming a data set into a time-series.
- Start coding in Python and learn how to use it for statistical analysis.
- Carry out time-series analysis in Python and interpreting the results, based on the data in question.
- Examine the crucial differences between related series like prices and returns.
- Comprehend the need to normalize data when comparing different time series.
- Encounter special types of time series like White Noise and Random Walks.
- Learn about "autocorrelation" and how to account for it.
- Learn about accounting for "unexpected shocks" via moving averages.
- Discuss model selection in time series and the role residuals play in it.
- Comprehend stationarity and how to test for its existence.
- Acknowledge the notion of integration and understand when, why and how to properly use it.
- Realize the importance of volatility and how we can measure it.
- Forecast the future based on patterns observed in the past.