Introduction to Machine Learning Models Using IBM SPSS Modeler (V18.2)

Duration: 2 Days **Course Code: 0A079G** **Delivery Method: Virtual Learning**

Overview:

This course provides an introduction to supervised models, unsupervised models, and association models. This is an application-oriented course and examples include predicting whether customers cancel their subscription, predicting property values, segment customers based on usage, and market basket analysis.

Virtual Learning

This interactive training can be taken from any location, your office or home and is delivered by a trainer. This training does not have any delegates in the class with the instructor, since all delegates are virtually connected. Virtual delegates do not travel to this course, Global Knowledge will send you all the information needed before the start of the course and you can test the logins.

Target Audience:

Data scientists Business analysts Clients who want to learn about machine learning models

Objectives:

- At the end of the course, participants will be able to :
- Use machine learning models
- Prepare data for modeling

Prerequisites:

- Knowledge of your business requirements
- Basic understanding of Data Science

Content:

Supervised models: Decision trees - CHAID

- CHAID basics for categorical targets
- Include categorical and continuous predictors
- CHAID basics for continuous targets
- Treatment of missing values

Supervised models: Decision trees - C;R Tree

- C;R Tree basics for categorical targets
- Include categorical and continuous predictors
- C;R Tree basics for continuous targets
- Treatment of missing values
- Evaluation measures for supervised models
- Evaluation measures for categorical targets
- Evaluation measures for continuous targets

Supervised models: Statistical models for continuous targets - Linear regression

- Linear regression basics
- Include categorical predictors
- Treatment of missing values
- Supervised models: Statistical models for categorical targets - Logistic regression
- Logistic regression basics
- Include categorical predictors
- Treatment of missing values

Association models: Sequence detection

- Sequence detection basics
- Treatment of missing values

Supervised models: Black box models - Neural networks

- Neural network basics
- Include categorical and continuous predictors
- Treatment of missing values

Supervised models:

- Black box models - Ensemble models
- Ensemble models basics
- Improve accuracy and generalizability by boosting and bagging
- Ensemble the best models

Unsupervised models: K-Means and Kohonen

- K-Means basics
- Include categorical inputs in K-Means
- Treatment of missing values in K-Means
- Kohonen networks basics
- Treatment of missing values in Kohonen

Unsupervised models: TwoStep and Anomaly detection

- TwoStep basics
- TwoStep assumptions
- Find the best segmentation model automatically
- Anomaly detection basics
- Treatment of missing values

Association models: Apriori

- Apriori basics
- Evaluation measures
- Treatment of missing values

Preparing data for modeling

- Examine the quality of the data
- Select important predictors
- Balance the data

Additional Information:

Official course book provided to participants

Further Information:

For More information, or to book your course, please call us on 00 971 4 446 4987

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