Enterprise Computing Solutions - Education Services

TRAINING OFFERING

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Splunk for Analytics and Data Science

CODE:	LÄNGE:	PREIS:
SPL_SFAADS	16 Hours (2 Tage)	€1,500.00

Description

This 13.5 hour course (3 days a 4,5 hours) is for users who want to attain operational intelligence level 4, (business insights) and covers implementing analytics and data science projects using Splunk's statistics, machine learning, built-in and custom visualization capabilities.

Lernziel

- Analytics Framework
- Exploratory Data Analysis
- Regression for Prediction
- Cleaning and Preprocessing and Feature Extraction
- Algorithms, Preprocessing and Feature Extraction
- Clustering Data
- Detecting Anomalies
- Forecasting
- Classification

Voraussetzungen

- Splunk Fundamentals 1
- Splunk Fundamentals 2
- Splunk Fundamentals 3
- *or equivalent Splunk experience*

Inhalt

Module 1 – Analytics Workflow

- Define terms related to analytics and data science
- Define the analytics workflow
- Describe common usage scenarios
- Navigate Splunk Machine Learning Toolkit

Module 2 – Exploratory Data Analysis

- Describe the purpose of data exploration
- Identify SPL commands for data exploration
- Split data for testing and training using the sample command

Module 3 – Predict Numeric Fields with Regression

- Differentiate predictions from estimates
- Identify prediction algorithms and assumptions
- Describe the fit and apply commands
- Model numeric predictions in the MLTK and Splunk Enterprise
- Use the score command to evaluate models

Module 4 – Clean and Preprocess the Data

- Define preprocessing and describe its purpose
- Describe algorithms that preprocess data for use in models

    - Use FieldSelector to choose relevant fields
    - Use PCA and ICA to reduce dimensionality
    - Normalize data with StandardScaler and RobustScaler
    - Preprocess text using Imputer, and NPR, TF-IDF, HashingVectorizer and the cluster command

Module 5 – Cluster Data

- Define Clustering
- Identify clustering methods, algorithms, and use cases
- Use Smart Clustering Assistant to cluster data
- Evaluate clusters using silhouette score
- Validate cluster coherence
- Describe clustering best practices

Module 6 – Anomaly Detection

- Define anomaly detection and outliers
- Identify anomaly detection use cases
- Use Splunk Machine Learning Toolkit Smart Outlier Assistant
- Detect anomalies using the Density Function algorithm
- Optimize anomaly detection with the Local Outlier Factor
- View results with the Distribution Plot visualization

Module 7 – Estimation and Prediction

- Differentiate predictions from forecasts
- Use the Smart Forecasting Assistant
- Use the StateSpaceForecast algorithm
- Forecast multivariate data
- Account for periodicity in each time series

Module 8 – Classification

- Define key classification terms
- Use classification algorithms

    - AutoPrediction
    - LogisticRegression
    - SVM (Support Vector Machines)
    - RandomForestClassifier

- Evaluate classifier tradeoffs
- Evaluate results of multiple algorithms

Kurstermine

Auf Anfrage. Bitte kontaktieren Sie uns

Zusätzliche Information

Diese Schulung ist auch als Vor-Ort-Schulung verfügbar. Bitte kontaktieren Sie uns, um mehr zu erfahren.