

# Introduction to Subsurface Machine Learning - ISML

### COURSE

## **About the Course**

Looking to understand machine learning and how it can be applied to subsurface analytics workflows?

This course is a foundational introduction to the landscape of subsurface-focused machine learning. Topics and techniques covered include outlier detection, data debiasing and imputation, feature engineering, anomaly detection, supervised and unsupervised learning, spatiotemporal modeling, and uncertainty modeling.

# **Target Audience**

Subject Matter Experts with programming experience in Python

## You Will Learn

Advanced understanding of geostatistics & machine learning models with subsurface workflows in Scikit-learn & TensorFlow on petroleum data sets.

#### Course Content

- Probability
- Data Analytics
- · Feature Selection
- · Feature Engineering
- · Machine Learning
- Clustering
- · Advanced Clustering
- · Dimensionality Reduction
- Multidimensional Scaling
- Naïve Bayes
- k-Nearest Neighbors
- Decision Tree
- · Ensemble Tree
- Support Vector Machines
- · Neural Networks
- SHAP

# **Product Details**

Categories: <u>Upstream</u>

Disciplines: <u>Data Management, Science and Analytics</u>

Levels: Basic

Product Type: Course

Formats Available: <u>In-Classroom</u>

Instructors: <u>John Foster</u> <u>Michael Pyrcz</u>

# **In-Classroom Format**

1 Aug '24 2 Aug '24 - | Course | In-Classroom (in Houston)

\$2,785.00