



# GeoNeurale

[www.GeoNeurale.com](http://www.GeoNeurale.com)

**-Postdoctoral and doctorand training for Geoscientists and Engineers**

**-Industry postdoctoral and cross-disciplinary training**

## **Module 8.**

### **Artificial Intelligence Methods for Geoscientists and Engineers**

Linear and Non-Linear Models

Binary classification

Supervised learning methods in Petrophysical Analysis

Unsupervised learning methods in Petrophysical Analysis

Supervised learning Methods in Seismic Analysis

Unsupervised learning Methods in Seismic Analysis

Logistic Regression

Cost Function

Gradient Descent

Forward Propagation

Backwards Propagation

Derivation of Cost Function

Interlayers Derivatives

Vectorization

Shallow Neural Networks

Deep Neural Networks

Broadcasting

Activation Functions

Iterative optimization processes