

# Analytic Signal Limited

## Machine Learning

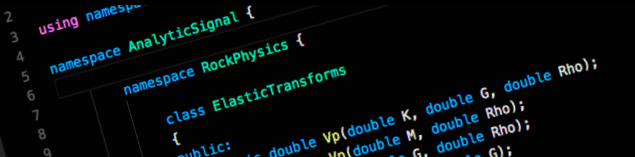
## for the Digital Subsurface

### About Us

We are a London-based consultancy founded in 2016 to explore the potential of machine learning to transform the way we analyse data in the upstream oil and gas industry. Informed by more than 20 years experience of research and development in reservoir geophysics, reservoir modelling, geostatistics, and software engineering, we have a unique perspective on the role of machine learning in geoscience workflows. We deliver consultancy, software, and training, enabling clients to exploit this key technology for the digital subsurface.

### Expertise

- R&D in machine learning, geostatistical reservoir modelling, stochastic seismic inversion, uncertainty analysis, exploratory data analysis.
- R, Python and MATLAB for machine learning and data science projects.
- C/C++ for commercial product development in the computational geosciences.
- Plug-in development using C# .Net and Ocean for Petrel.

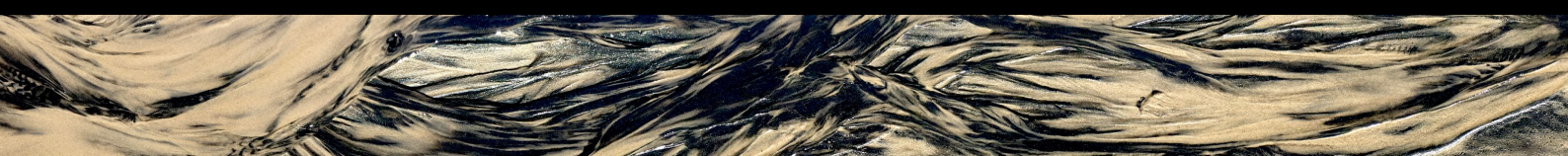


### Machine Learning

- Our background in reservoir geoscience, statistics, and computer science is key to our application of machine learning to the subsurface.
- We develop practical solutions to the particular challenges posed by the subsurface: sparse data, spatial correlation, unlabelled data, quality control, and multiple data vintages.
- We think the future is interpretable machine learning models not black-box ones.

### Recent Projects

- Petrophysical Interpretation: Quality control and log reconstruction for massive well datasets.
- Production Data Analysis: Clustering wells by similarity in decline curves.
- Unconventional Resources: Evaluating relationships between production, seismic attributes, and hydraulic fracture stimulation design.



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