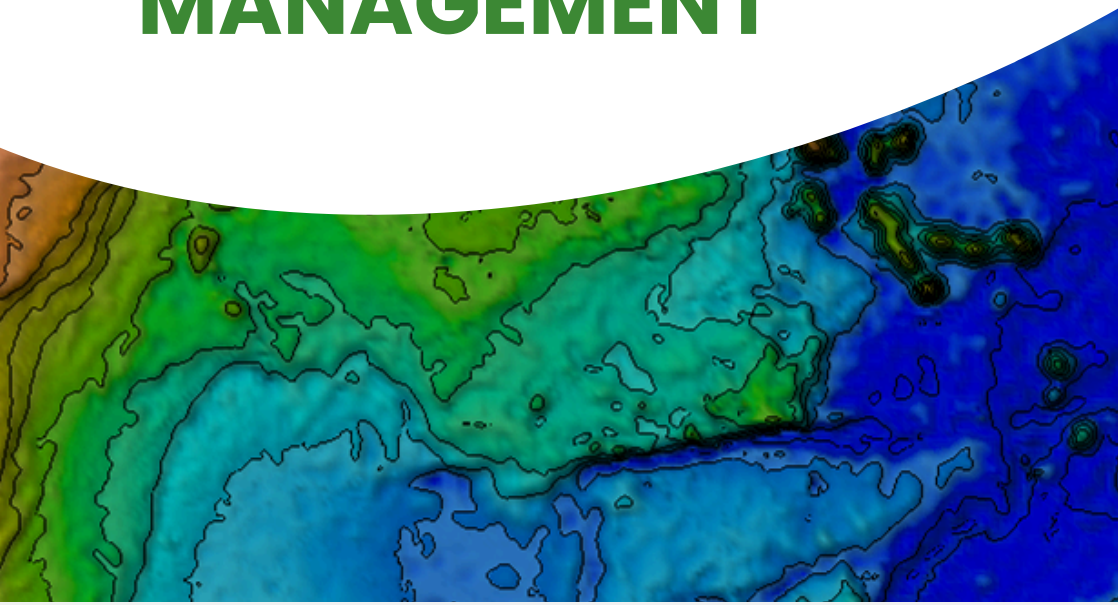
ExploreTerra

Unearth Your Energy Potential

Training

APPLIED AI FOR GEOPHYSICS MANAGEMENT



This curriculum is designed to familiarize learners with the fundamentals of machine learning and its practical applications in geophysics.

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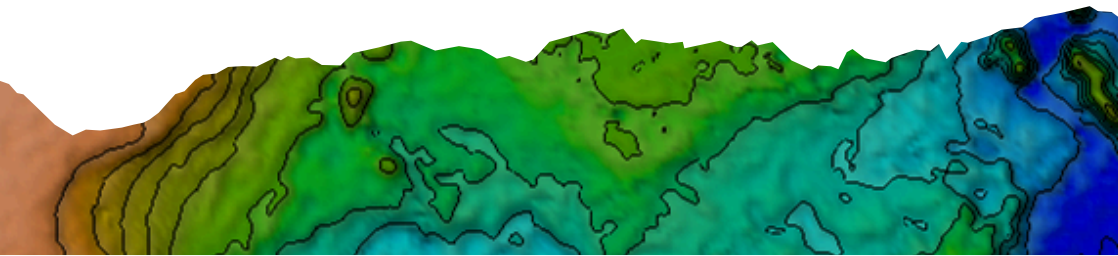
WELCOME!

This course is designed to provide leaders in the field of Geophysics with a comprehensive overview of practical machine-learning use cases. Through a no-code perspective, participants will discover how machine learning is being applied to solve various geophysical challenges, enhance decision-making, and drive innovation in the industry.



SCOPE

- **Duration:** 1 month.
- **Hours:** 8 hours.
- **Price per person:** $700 USD
- **Target Audience:** Geophysicists, geologists, data scientists, and business leaders interested in integrating machine learning in geophysical applications.
- **Format:** This course will blend theoretical discussions with practical, real-world examples to illustrate machine learning use cases in geophysics. No coding experience is required.
- **Focus Areas:** Machine learning, Data analysis, Geophysical applications, Python programming.
- **Type or training:** Remote (Teams) or in person.
- **Maximum number of students:** 20
- **Languages:** Available in English or Spanish

CONTENT

Hour 1: Introduction to Machine Learning Use Cases in Geophysics

- Overview of machine learning in a business context
- High-level understanding of ML approaches relevant to geophysics

Hour 2: Seismic Data Analysis and Interpretation

- Improving resolution and noise reduction
- Automated fault detection
- Time-lapse monitoring for reservoir management

Hour 3: Subsurface Characterization

- Lithology prediction through well-log data
- Enhanced reservoir characterization
- Predictive modeling for resource estimation

Hour 4: Exploration and Prospect Identification

- ML applications in mineral and hydrocarbon exploration
- Use cases of predictive models for prospect identification
- Integrating geospatial data with machine learning for exploration optimization

CONTENT

Hour 5: Geohazard Prediction and Environmental Monitoring

- Earthquake likelihood modeling
- Landslide susceptibility mapping
- Environmental impact assessments using machine learning

Hour 6: Applied Machine Learning in Geophysical Workflows

- Optimizing geophysical field surveys
- Digital twins for geophysical assets
- ML-driven decision support systems in geophysics

Hour 7: Navigating the Implementation of Machine Learning Solutions

- Best practices for machine learning projects
- Case studies of successful implementation
- Common pitfalls and how to avoid them

Hour 8: Future Trends and Strategic Planning

- The evolving role of machine learning in geophysics
- Preparing for a machine-learning-enabled future
- Strategic integration of machine learning in business planning

Success Stories

Justo is a machine learning expert with more than half a decade providing machine learning services.

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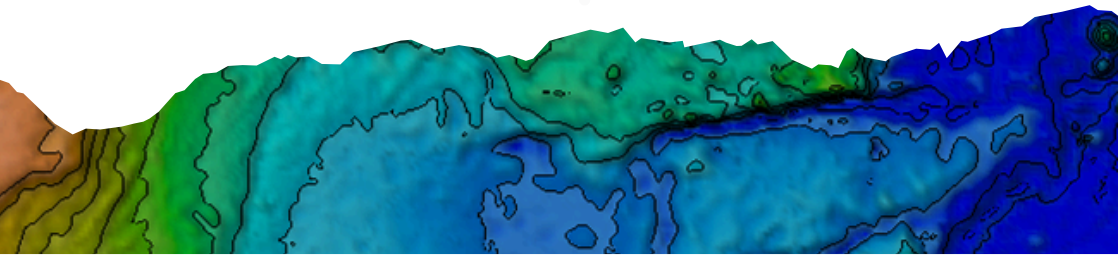
ABOUT **COMPANY**

ExploreTerra's vision is to contribute to the geoscience consultancy and training landscape. Our core purpose is to establish a dynamic platform that creates connections between available talent and opportunities or needs within the energy industry.

We are dedicated to enriching the energy sector through specialized services and empowering geoscientists with technical training, tailored technology transfer, and the adoption of integrated, multidisciplinary best practices.



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YOUR INSTRUCTORS

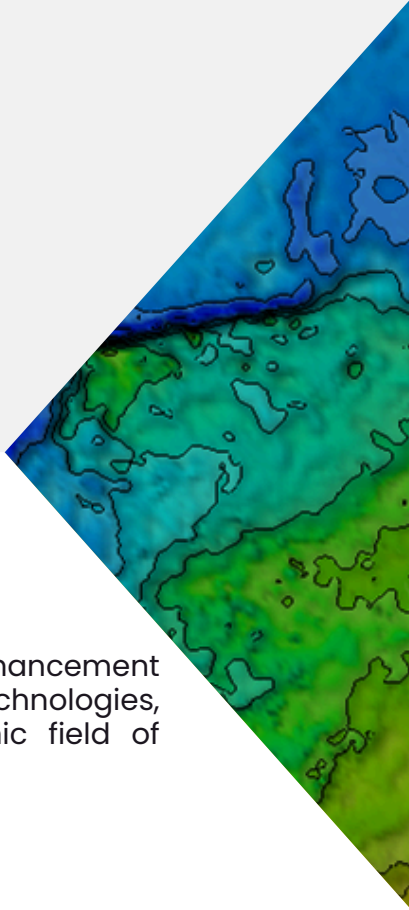
Justo Rodriguez, PhD

Machine Learning Expert

Machine Learning Engineer, with a PhD in Chemical Physics, and half a decade of expansive experience, contributed to critical projects with renowned clients such as AAMI, Allianz, AstraZeneca, and Quest Diagnostics.

Recognized for leadership in a groundbreaking project in the CGI Global Innovation Challenge, along with a remarkable authorship of 30+ peer-reviewed scholarly articles. Expert in leveraging large language models (LLMs), natural language processing (NLP), and resource-efficient microservices to devise data-centric solutions that have substantially reduced costs and optimized processes in numerous industrial sectors.

GET
IN TOUCH



Our training programs, designed by seasoned geoscientists, are tailored to meet contemporary industry needs.

We prioritize technical and core skill enhancement and the incorporation of advanced technologies, equipping professionals for the dynamic field of geoscience.

CONTACT US :

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