Keyla Gonzalez

MSc Student in Petroleum Engineering

MS student in Petroleum Engineering and BS in Geophysical Engineering with a primary interest in data science, carbon sequestration, and subsurface characterization and monitoring.

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EDUCATION

MSc, Petroleum Engineering
Texas A&M University (GPA 3.6/4)

08/2019 - 08/2021 *College Station, TX*

BS, Geophysical Engineering
Universidad Simon Bolivar (GPA: 4.06/5)

03/2018 *Caracas, Venezuela*

INDUSTRY EXPERIENCE

Co-Op/Thesis – Exploration and Reservoir Studies
PDVSA INTEVEP

04/2017 - 01/2018 *Los Teques, Venezuela*

- Developed a petrophysical model of Bare field (Orinoco Belt in Venezuela) using well log data, conventional, and special core analysis from 40 wells.
- Analyzed the stratigraphic sequence of the field integrating data from petrophysics, seismic, sedimentologic models, and biostratigraphy.

Intern – Exploration and Reservoir Studies
PDVSA INTEVEP

07/2016 - 08/2016 *Los Teques, Venezuela*

- Reviewed, QC, and validated well-log data for 32 wells of the carbonate field La Concepcion. The analysis included lithology, resistivity, density, and sonic logs.
- Determined possible fracture zones in the field through Crain's method using formation well-logs.

KEY COURSES

Engineering Data Analysis
Texas A&M University - Graduate Course (ISEN-613)

Petroleum Data Analytics and Machine Learning
Texas A&M University - Graduate Course (PETE-689)

Physics-based and Data Driven Reduced-Order Modeling
Texas A&M University - Graduate Course (PETE-689)

Fundamentals of Deep Learning for Computer Vision
NVIDIA

LANGUAGES

English
Native or Bilingual Proficiency

French
Full Professional Proficiency

Spanish
Native or Bilingual Proficiency

SKILLS

Python / R / MATLAB | Machine Learning | Data Mining / Unsupervised Learning | Data Compression | Microseismic | Carbon Sequestration | Formation Evaluation | Problem-solving / Critical Thinking | Geolog / Petrel / Surfer

ACADEMIC EXPERIENCE

Research Assistant – Department of Energy
Texas A&M University

07/2020 - Present *College Station, TX*

- Developed a machine learning model for detecting CO2 content and estimating plume migration and leakage. Use of extensive and complex Earth Science datasets (i.e. unstructured, images, time-lapsed, signals)
- Implemented high-order SVD for denoising and compressing microseismic data, integrating it with Distributed Acoustic Sensing (DAS) for fracture orientation interpretation in unconventionals.

Research Assistant – Microseismic Industry Consortium
University of Calgary

04/2019 - 07/2019 *Calgary, Canada*

- Analyzed source parameters of 4,083 microseismic events in Fox Creek, Alberta to understand fault activation from fluid injection.
- Impemented MATLAB codes for signal processing and data analysis.

AAPG's Imperial Barrel Award Program (IBA)
Universidad Simon Bolivar

01/2018 - 03/2018 *Caracas, Venezuela*

- Analyzed a complete reservoir dataset from Scarborough gas field (offshore Australia) to evaluate basin prospectivity, including geology, geophysics, petrophysics, production, and infrastructure.

ORGANIZATIONS

Society of Petroleum Engineers (SPE) – Texas A&M Student Chapter (08/2020 - Present)
Co-Director of Data Analytics Committee

American Association of Petroleum Geologists (AAPG) Student Chapter – Universidad Simon Bolivar (01/2016 - 01/2017)
President

Association of Geophysical Engineering Students – Universidad Simon Bolivar (09/2014 - 09/2015)
Event coordinator