# Geophysical Engineer JOSÉ RAFAEL CAMPOS TORREALBA

Website: ralfcam.github.io

Email: <a href="mailto:campos.cantropus@gmail.com">campos.cantropus@gmail.com</a> Phone Number: +34 611 444 375 City of residence: Barcelona, Spain



**OBJECTIVE:** To become a top professional in the energy industry focusing on the oil & gas upstream segment improvement through innovative technologies.

## **ACADEMIC FORMATION**

MSc. RESERVOIR GEOLOGY AND GEOPHYSICS. Universitat De Barcelona (UB). SEPTEMBER 2017 - JULY 2018. **Projects:** Procedural report of a seismic sequence processing in Seisspace ProMax for a 2D marine dataset. Joint audio-magnetotelluric and passive seismic imaging of the Cerdanya Basin.

**Dissertation:** Experimental signal-noise ratio enhancing of magnetotelluric time series data with machine learning models. Ongoing. **Reference: Prof. Dr. Alejandro Marcuello** - <a href="mailto:alex.marcuello@ub.edu">alex.marcuello@ub.edu</a> - Titular professor UB & Integrant of Electromagnetic and Seismic exploration group (EXES).

**BSc. GEOPHYSICAL ENGINEER.** Universidad Central De Venezuela (UCV). OCTOBER 2008 - DECEMBER 2014. **Projects:** Joint magnetotelluric, gravimetric and seismic characterization of the Orinoco River Basin. **Dissertation:** Acquisition and processing of gravimetric and magnetic data on a 300 km long profile located over the Merida Andes (obtained maximum grade with honors).

## **COMPLEMENTARY FORMATION / CERTIFICATES**

Neural Networks for Machine Learning. UNIVERSITY OF TORONTO. FEBRUARY 2018 - JUNE 2018 Machine Learning. STANFORD UNIVERSITY. JANUARY 2018 - MARZ 2018 Programming Languages. UNIVERSITY OF WASHINGTON. APRIL 2016 - ONGOING Full Stack Developer. CODECAMP ORG. SEPTEMBER 2015 - ONGOING Data Science Specialization. JOHNS HOPKINS UNIVERSITY. JANUARY 2015- ONGOING

## **INFORMATION TECHNOLOGIES**

**SOFTWARES** Petrel E&P Software Platform, GOCAD®, Move, IHS Kingdom®, SeisSpace® Promax®, Matlab®, PetroMod Petroleum Systems Modeling Software, Zond software package, AutoCAD, ArcGIS, Geosoft Oasis montaj, Adobe® Creative Cloud®, Office 365.

**PROGRAMING LANGUAGES** JavaScript, TypeScript, HTML5, CSS3, PHP, SQL, Python, Matlab, R. **DATABASE** MySQL, MongoDB, SQL Server, Oracle.

FRAMEWORKS React, Node.JS, AngularJS, TensorFlow, Django, Apache Cordova.

IDEs PyCharm, IPython / Jupyter, PhpStorm, R Studio.

PLATFORMS Linux Desktop, Mac OS, Windows Desktop, Amazon Web Services (AWS), WordPress.

## **LANGUAGES**

**Spanish** (C2 / Native); **English** (C1 / IELTS Score Band: 7); **French** (B2 / Alliance Française); Japanese, Chinese, Russian (A1).

## **EXPERIENCE AS GEOPHYSICIST**

OCTOBER 2015 - JULY 2017. Exploration Geophysicist. Geo&Amb — Chile.

Electromagnetic method for prospecting (STRATAGEM EH4) and characterizing (Petrel) near surface structures of interest for mining and related industries. Administrative, marketing and web development tasks. **Reference: Dr. Andrés Acosta** - <a href="mailto:andres.acosta@geoamb.cl">andres.acosta@geoamb.cl</a> Geophysical Manager at Geo&Amb Consultores SpA.

FEBRUARY 2015 - MAY 2015. Exploration Geophysicist. FUNVISIS (Venezuela Foundation for Seismological Research, Spanish acronym) & GFZ Potsdam (German Research Centre for Geosciences) — Venezuela.

Acquisition of Magnetotelluric profiles and on-field preprocessing of data. Planning and setting of magnetotellurics stations, acquisition design, evaluating register times to reach the target depth. **Reference: Prof. Dr. Oliver Ritter** - <u>oliver.ritter@gfz-potsdam.de</u> - Titular professor Freie Universität Berlin & Head of Geo-Electromagnetics Group at Helmholtz Centre Potsdam GFZ.

JANUARY 2015 - FEBRUARY 2015. Exploration Geophysicist. PDVSA (Petroleum of Venezuela) — Venezuela.

Evaluation of Vibroseis exploration techniques for implementation in the GIAME Project. Planning of the accelerometers installation. Daily data quality control and preprocessing. **Reference: Prof. Dr. Michael Schmitz - schmitzschutt@gmail.com** - Titular professor UCV & Head of geophysics at FUNVISIS.

MARZ 2014 - MAY 2014. Industry Intern. GIAME Project. FUNVISIS & Rice University — Venezuela.

Deep seismic refraction dataset acquisition using high precision Texan Data Loggers With 1 HZ Seismometers. Responsible of the instruments installation, and daily preparation/maintenance.

OCTOBER 2014. Expositor at JIFI - EAI (Research, Academic and Industrial Meeting, Spanish acronym) — Venezuela. - <u>bit.ly/2pTywik</u>

JANUARY 2013 - JULY 2013. Industry Intern. Sismica Bielovenezolana s.a. (PDVSA) — Venezuela.

Quality control of acquisition parameters and shotgathers of a 3D seismic. Acquisition of gravimetric, magnetic, electromagnetic and seismic refraction data for the characterization of the weathering layer and further processing. Integrated geophysical model of the Junin block of the Orinoco Belt. "Huyapari 11M3D3C" and "Rio Claro 11M3D3C" for ECM Petropiar and Petrocarabobo respectively.

## **ACTIVITIES AND SOCIETIES**

Student's spokesperson before the school council. (UCV). JANUARY 2013 - DECEMBER 2014 General secretary of the student's representation. (UCV). JANUARY 2012 - DECEMBER 2014 Student Member. Society of Exploration Geophysicists (SEG). JANUARY 2012 - ONGOING

## **COMPETENCES**

Fundamental mathematical and physical principles applicable in advanced geology and geophysics academic research (Potential-field methods, electromagnetic methods, near-surface geophysics, seismology, lithosphere dynamics and topography, numerical & statistical analysis, database design & data visualization, sedimentology, petrophysical well log analysis).

**Exploring and managing sedimentary reservoirs**, 3d geological/geophysical reservoir modelling, characterization & monitoring (from multidisciplinary data), processes governing reservoir genesis and evolution, petroleum systems & reservoir analysis, basin analysis, basic core/log analysis & interpretation, well logs correlation, applied petrophysics, seismic reflection seismic processing and interpretation & reporting, petroleum engineering, .

**Multidisciplinary teamwork, problem solving,** business acumen. Pre-plan data acquisition projects, select data-processing techniques, deploy equipment, detect irregularities on recording, data management & quality control.