Jorge Antonio Puente Huerta

M.S. in Earth Sciences with a Major in Applied Geophysics

SKILLS

Programming
Python
MATLAB

Geosciences software
Promax
Seisworks
Opendtect
Seismic Unix
Qgis
ArcGIS.

Operative Systems
Windows
Linux

Office
MS (Excel, PowerPoint, Word)
Open office
LaTeX

PROFILE

Master of Science in Earth Sciences with a major in Applied Geophysics.

Seismic exploration for Oil & Gas.

Fluent in Python. I have developed a passion for data analytics and data visualization. Excellent ability to adapt to multicultural environments; teamwork capabilities.

Facility to coordinate several tasks simultaneously, prioritize and operate them proactively. Works efficiently under pressure, organized and goal-oriented.

EXPERIENCE

06/2021 – currently

Researcher (PhD candidate)
Institute of Geophysics of the Czech Academy of Sciences
Duties:
Conduct fundamental and applied research in the Earth Sciences.

11/2020 – 06/2021

It Trainee
Tata Consultancy Services
Duties:
Support web applications, client requirements on windows and Linux systems. Mainly used Java, JavaScript, SQL.

04/2020 – 09/2020

Field Geophysicist Engineer
Geo Explorer Solutions
Duties:
Data acquisition through Vertical Electrical Sounding geophysical methodology for water exploration.

09/2017 - 11/2019

Data Processing & Interpretation Geophysicist Engineer
Center for Scientific Research and Higher Education at Ensenada
Duties:
2D Seismic Processing and Interpretation, from raw Seg-Y to time migrated section, that included:

- QC of seismic records.
- First break picking.
- Managing geometries.
- Filtering the data.
- Managing velocity models.
- Kirchhoff migration using ProMax.
- Seismic interpretation (SeisWorks/Opendtect).

The seismic database was provided by PEMEX (National oil company of Mexico). This work was developed for obtaining my Master of Science degree in Earth Sciences with a major in Applied Geophysics.

Achievements include:

- ✓ Characterization of tectonostratigraphic features of the northern Altar pull-apart basin.
- ✓ Configuration of the acoustic basement based on seismic interpretation and well log data.
- ✓ Correlation of existing and new faults along the basin.
- ✓ **Submitted Research paper in a major Geoscience journal.**

Languages

- ✓ Spanish **Native**
- ✓ English **Fluent (TOEFL IBT (95 pts)**

CONTACT

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SCHOLARSHIPS

- ✓ **CONACYT-SENER Hydrocarbons scholarship**, by the Mexican Department of Energy (SENER), and the Mexican National Science and Technology Council (CONACYT)

OTHER QUALIFICATIONS

- ✓ **Associated** to the Society of Exploration Geophysicists (SEG).
- ✓ **Mexican Delegate** of the Student Energy Summit, at London, UK (2019)
- ✓ **Contestant of the National Challenge Bowl SEG** México City (March, 2019).
- ✓ **Spanish Translation Volunteer at the SEG**: It was a teamwork project for translating the 4th edition of English Robert Sheriff's Encyclopedic

EDUCATION

2021-2025 **Ph.D., Math and Physics faculty**
Charles University in Prague.

2017-2019 **M.S. in Earth Sciences with a major in Applied Geophysics**
Center for Scientific Research and Higher Education at Ensenada

Thesis: "Structure of a sector of north Altar basin, Sonora, with 2D seismic reflection data".

Objective: The northern Gulf of California and Salton trough contains segmented marginal basins that were abandoned during the evolution of this oblique rift system during late
Miocene to early Pliocene time. The Altar Basin, located in northwestern Sonora, Mexico, contains a <5 km thick sedimentary record representing the first marine incursion
(late Miocene) and first deltaic deposits of the Colorado River.
2D reflection seismic profiles were processed and interpreted in order to characterize tectonostratigraphic features in the northern part of the Altar basin.
Supervised by: Mario Gonzalez, Arturo Martín, John Fletcher, and Joann M. Stock

2012-2017 **B.S. in Geosciences Engineering**
Instituto Tecnológico de Ciudad Madero

COURSES & CERTIFICATES

Geosciences

- **Physics and Mechanics of Rocks** by Manika Prasad, 2019 Distinguished Instructor Short Course (SEG).
- **Machine learning essentials for Seismic Interpretation** certified by Geophysical Insights.

Programming, Machine learning & Data Science

- **Crash course on Python** by Google (2019).
- **Using Python to interact with the OS** by Google (2020).
- **Machine learning course** by Stanford (2020)
- **Data Science with Python** by SciData(2020)

Management

- **Scrum Fundamentals Certified** by Scrum study
- **Leadership & teamwork workshop** issued by STPS (DC-3)

MEETINGS & SCIENTIFIC CONTRIBUTIONS

- Huerta, J.A.P., González-Escobar, M. & Stock, J.M. Structure of the Northern Altar Pull-Apart Basin Revealed by a 2D Reflection Seismic Survey: Evolution of the Gulf of California Shear Zone in Northwest Mexico. Pure Appl. Geophys. 179, 3191–3216 (2022). https://doi.org/10.1007/s00024-022-03138-1
- Poster presentation titled "Comparison of seismic phase association algorithms and their performance", EGU Vienna, 2023
- Oral presentation "Avances en algoritmos de asociacion de fases sismicas y resultados comparativos preliminares", Seismology Seminar sessions at Center for Scientific Research and Higher Education at Ensenada, Mexico, 2023
- Oral presentation "Avances en algoritmos de asociacion de fases sismicas y resultados comparativos preliminares", Seismology Seminar sessions at Center for Scientific Research and Higher Education at Ensenada, Mexico, 2023
- Oral presentation titled "Exploring the performance of phase association algorithms", EGU Vienna, 2022
- Oral presentation "Machine learning applied to seismic phase picking and seismic phase association", Charles University seismology seminar, 2022
- Oral presentation titled "Seismic exploration over an abandoned basin, Northern Gulf of California" at the International Student Energy Summit 2019, Imperial College London (2019).
- Oral presentation titled "Tectonostratigraphic characteristics of the Altar basin, Sonora, México from a 2D seismic reflection survey" at the annual meeting of the **Union Geofisica Mexicana** (2019).