EDGAR GIOVANI MARTÍNEZ-MENDOZA

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Web Page: https://edgargmartinez.github.io/

Research Interests: Pore-scale modeling, pore network models, flow and transport phenomena, image processing, percolation theory in displacement processes, reservoir modeling, reserves, risk analysis & management, machine learning, and data mining.

EDUCATION

Universidad Nacional Autónoma de México *2016 - 2018*
M.Sc. in Modeling, GPA: 9.89/10

Universidad Nacional Autónoma de México *2011 - 2016*
B.Sc. in Petroleum Engineering, GPA: 9.19/10
Graduated with Honors

EXPERIENCE

Visiting researcher March 2018 - May 2018
University of Waterloo *Ontario, Canada*

· This stay addressed on multiphase transport in porous media and the open source pore-network modeling project, OpenPNM. Supervised by Prof. Jeff Gostick

Thesis Student 2015 - 2016
Mexican Petroleum Institute *Mexico City*

· Developing my undergraduate thesis: "*Pore network models for obtaining effective flow and transport properties in petroleum reservoirs*". Directed by Dr. Martín A. Díaz-Viera

Field Practice August 2014
Petróleos Mexicanos (PEMEX) *Unidad de Perforación Comalcalco*

· Well Completion and Maintenance

Field Practice December 2013
Petróleos Mexicanos (PEMEX) *Unidad de Perforación Reforma-Ciudad PEMEX*

· Drilling Engineering

Field Practice July 2013
Petróleos Mexicanos (PEMEX) *Unidad de Perforación Litoral*

· Well Drilling Elements

COMPUTER SKILLS

Languages	Python, Matlab, C++, Visual Basic
OS	GNU/Linux, Windows
Software	Inkscape, Gimp, Paraview, ImageJ, LaTeX

LANGUAGES

Spanish Mother tongue
English Upper Intermediate

ORAL PRESENTATIONS

"Pore network approach for low salinity waterflooding process simulation: salinity effect on rock-fluid properties", Fifth Annual Meeting of Mexican Chapter of InterPore, November 2018.

"Low salinity waterflooding simulation via pore network models: salinity impact on capillary pressure and relative permeability curves", XXXIII AIPM Technical Conferences, October 2018.

"Fluid flow property estimation using a pore network modeling aApproach", The InterPore 10^{th} Annual Meeting and Jubilee, New Orleans, LA. May 2018.

"Comparative study of pore network modeling software for the characterization of porous media: OpenPNM and PoreFlow", Fourth Annual Meeting of Mexican Chapter of InterPore, November 2017.

"Methodology for porous media characterization at pore scale through pore network modeling", Third Annual Meeting of Mexican Chapter of InterPore, October 2016.

"Methodology for obtaining effective flow properties employing a pore network model", XXX AIPM Technical Conferences, October 2015.

PATENTS AND COPYRIGHTS

Martínez-Mendoza E.G., Díaz-Viera M.A., **"Study of the impact of salinity change in a LSWF process on capillary pressure and relative permeability curves by flow and transport modeling at pore network scale"**, Record number: 03-2018-121914143500-01, National Institute of Copyright, December 19, 2018.

GIVEN WORKSHOPS

"Visual Basic 6.0 for petroleum engineering students", Faculty of Engineering, Universidad Nacional Autónoma de México, March 2014.

COURSES

Guanajuato Uncertainty Quantification: Workshop on Inference and Uncertainty Quantification in Science and Engineering Problems (GUQ2019) *January 2019*
CIMAT

Introduction to Data Science in Python *January 2019*
University of Michigan/Coursera

Applied Data Science with Python *December 2018*
IBM/Cognitiveclass.ai

C++ Intermediate *January 2016*
Computational Technology Program (PROTECO)

MOOC Oil and Gas: From Exploration to Distribution *June 2015*
Institute Français du Pétrol

Geological Modeling with PETROMOD *July 2014*
Schlumberger

Advanced Drill Bit *April 2014*
Baker Huges

Introduction to PETREL *May 2013*
Schlumberger

SCIENTIFIC MEMBERSHIPS

- International Society for Porous Media
- Society of Petroleum Engineers
- American Association of Petroleum Geologists
- Earth-Science Modeling Group