

PERSONAL INFORMATION

Mariana Castañeda González

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Sex: Female | Date of birth: 02/03/1992 | Nationality: Mexican

EDUCATION

2018-Present

Ph.D candidate in engineering
École de technologie supérieure-Montreal, Canada

2016-2018

M.A.Sc. in environmental engineering
École de technologie supérieure-Montreal, Canada

2010-2014

Bachelor in Civil Engineering with Honours
University Veracruzana-Xalapa, Mexico

- Dean's Honour List (2010-2014)

WORK EXPERIENCE

August 2017-April 2019

Teacher Assistant
Dr. Michel Baraer, Dr. Annie Poulin and M. Eng. Philippe Gatién,

- Exercise sessions
- Tutoring
- Report corrections
- Laboratory sessions tutoring

February 2015-December 2015

Analyst Engineer
B.Eng. Edwy Uc López-Grupo Corporativo URBIS

- Construction site supervision
- AutoCAD drawings
- Make digital blueprints
- Progress reports
- Attend project meetings
- Budget-progress analysis

August 2014-December 2014

Intern

Dr. Annie Poulin– École de Technologie Supérieure
 DRAME (Développement et recherche appliquée en modélisation de l'eau)

- Hydrological Modelling
- Prepare articles, reports, and presentations Prepare reports, and presentations
- Summarize project results
- Analyse data
- Conduct literature reviews
- Writing articles (collaboration)

January 2012-Juin 2013

Engineer Assistant

M.E. José Manuel Jiménez Terán – Academy of Hydraulics

- Analysis of hydraulic systems
- Collect and analyse data
- Prepare reports, and presentations
- Make hydraulic systems drawings
- Make digital blueprints
- Prepare progress reports
- Attend project meeting

PUBLICATIONS

- Castaneda-Gonzalez M., Poulin A., Romero-López R., Arsenault R., Brissette F., Turcotte R. (2019). Sensitivity of seasonal flood simulations to regional climate model spatial resolution. *Climate Dynamics Journal*. DOI: <https://doi.org/10.1007/s00382-019-04789-y>
- Castaneda-Gonzalez, M. Poulin, A. Romero-López, R. Arsenault, R. Brissette F. Chaumont, D. and Paquin, D. (2018). Impacts of regional climate model spatial resolution on summer flood simulation. (HIC 2018). *EPIC Series in Engineering* vol. 3 pp.372-380. <https://doi.org/10.29007/hd8l>.
- Ibarra-Zavaleta, S.P. *Castaneda-Gonzalez, M. Poulin, A. Romero-López, R. Landgrave, and Ruelas Inzunza, E. (2018). Simulation of Extreme Hydrometeorological Events under Tropical Conditions Using a Distributed Hydrological Model. 13th International Conference on Hydroinformatics (HIC 2018). *EPIC Series in Engineering* vol. 3 pp.917-925. <https://doi.org/10.29007/qht4>.
- Romero-López, R., Ibarra-Zavaleta, S. P., Castañeda-González, Mariana, Poulin, A., Glaus, M., Hausler, R., Vega-Azamar, R. E., Oropeza-García, N. A., Maldonado-Bandala, E. and Machorro-García, P. R. (2017). Los modelos hidrológicos en las ciencias ambientales: aplicación y análisis para la toma de decisiones. *Retos y Perspectivas de las Ciencias Ambientales*. pp. 94-110. ISBN: 9786075025568. Universidad de Xalapa.
- Ibarra Zavaleta, S. P, Castañeda González, M., Poulin A. and Romero López, R. (2017). CAPÍTULO 4: Comparación de los modelos hidrológicos globales y semi-distribuidos. El impacto de las Ciencias de la Tierra en la Sociedad. ISBN: 978-607-502-556-8. Dirección editorial Universidad Veracruzana. <https://www.uv.mx/cienciauv/files/2017/04/El-impacto-de-las-Ciencias-de-la-Tierra-en-la-Sociedad.pdf>.
- Zavaleta, S. P. I., Gonzalez, M. C., López, R. R., Poulin, A., Glaus, M., Bandala, E. E. M., & Gonzalez, E. C. (2015). Global model MOHYSE, a new tool to assess the effect of hydro-meteorological phenomena in the tropics. Paper presented at the 2015 International Conference on Computing Systems and Telematics (ICCSAT). <https://ieeexplore.ieee.org/document/7362957/>.
- Ibarra Zavaleta, Sara Patricia; Castañeda González, Mariana; Romero López, Rabindranarth; Castillog Onzalez, Eduardo; Báez Camarena, Alberto Brando; Poulin, Annie; Glaus, Mathias; and Hausler, Robert. (2014). "Analysis Of Semi-Distributed And Global Hydrological Models In The Central Tropical Basins Of The Gulf Of Mexico To The Effects Of Extreme Hydrometeorological Phenomena". *CUNY Academic Works*. https://academicworks.cuny.edu/cc_conf_hic/176.

VOLUNTEER EXPERIENCE

August 2016-December 2016

Graduate students orientation

- Welcome of new graduate students during the launch of the "École doctorale et postdoctorale" at École de Technologie Supérieure.

January 2013-July 2013

Lecturer at the Escuela de Bachilleres "Constitución de 1917" (College level)

- Algebra
- Probability and Statistiques

PERSONAL SKILLS

Mother tongue(s)

Spanish

Other language(s)

UNDERSTANDING

SPEAKING

WRITING

English
TOEFL ITP: 590 points

High

High

High

French
Without Certificate

High

Intermediate High

Intermediate High

Communication skills

- Good communication skills gained through different experiences as a speaker at national and international conferences and project communications.

Organisational / managerial skills

- Leadership - Responsible for the class 2010-2014 at the University Veracruzana)
- Orientation Leader for new Civil Engineering students – New class orientations (160 students) University Veracruzana

Computer skills

- Good command of Microsoft Office™ tools
- Good command of MATLAB®
- Good command of AutoCAD®
- Good command of GIS

Other skills

- Teamwork
- Public speaking
- Teaching
- Matlab, R, Python (basic), Vensim

ADDITIONAL INFORMATION

Honours and awards

- Bourse d'études supérieures Rio Tinto pour l'École de technologie supérieure-2019
- Excellence Scholarship Program – Consejo Nacional de Ciencia y Tecnología (CONACYT) PhD studies (2018-Present).
- Excellence Scholarship Program – Consejo Nacional de Ciencia y Tecnología (CONACYT) Master's degree studies (2016-2018).
- Graduated with Honors Bachelor in Civil Engineering – Universidad Veracruzana (2014)
- Emerging Leaders of the Americas Program (ELAP) Internship program - Government of Canada (2014)
- Recognition of the most outstanding student of the generation (Valedictorian) 2007-2010 Colegio Preparatorio de Xalapa (College-Preparatory)
- Note laudatory, for academic performance, 2010-2013
- University Veracruzana

Conferences & Seminars

- Presentation of the “Impacts of regional climate model spatial resolution on summer flood simulation.”
13th International Conference on Hydroinformatics (HIC 2018)
July 1st-6th 2017, Palermo, Italy.
- Poster on the topic “Evaluation of high spatial resolution climate models outputs added value for the modelling of summer and fall floods in Quebec”
7e symposium Ouranos
November 15th-17th 2017, Montreal, Canada
- Poster on the topic “Assessment of high-resolution climate simulations for hydrological modelling and the impact on hydrological extremes”
RHQ (Recherche Hydrologique au Québec)
May 15th-16th 2017, Quebec City, Canada
- Presentation of the “Assessment of high-resolution climate simulations for hydrological modeling and the impact on hydrological extremes”
Ecole d'Eté en Sciences du Climat et du Changement Climatique 2017
May 28th- June 3rd 2017, Charlevoix, Canada
- Speaker on the topic “Analysis of semi-distributed and global hydrological models in the central tropical basins of the Gulf of Mexico to the effects of extreme hydrometeorological phenomena”
11th International Conference on Hydroinformatics
August, 2014 New York, USA
- Speaker on the theme "Comparative hydrological analysis to climate variability in the central basins of Veracruz by HEC-HMS and MOHYSE modelling"
Third National Research Conference on Climate Change (*Tercer Congreso Nacional de Investigación en Cambio Climático*)