

CARLOS E. PETRICIOLI ARAIZA

✉ carpetri@gmail.com www.carlospetricioli.com 📍 @carpetri

RESEARCH INTERESTS

- Data Science
- Data Engineering
- Machine Learning
- Language Processing
- Predictive Analysis
- Geostatistics
- Cloud Computing
- Data Visualization
- High Performance Computing
- Data Mining

EDUCATION

Aug. 2016 - May 2018 NY, USA	New York University (NYU) Master of Science in Computer Science.
Jan. 2014 - May 2015 Mexico City, Mexico	Instituto Tecnológico Autónomo de México (ITAM) Master of Science in Data Science. <i>Honorary Mention.</i>
Aug. 2009 - Dec. 2013 Mexico City, Mexico	Instituto Tecnológico Autónomo de México (ITAM) Bachelor of Science in Applied Mathematics. <i>Special Mention.</i>
Aug. 2007 - Dec. 2012 Mexico City, Mexico	Instituto Tecnológico Autónomo de México (ITAM) Bachelor of Science in Economics, specialization in Economic Theory.

PROFESSIONAL EXPERIENCE

Feb. 2016 - Mexico City, Mexico	Grupo Atalaya Chief Data Scientist
Aug. 2015 - Jan. 2016 Mexico City, Mexico	Eficiencia Informativa / Instituto Tecnológico Autónomo de México (ITAM) Lead Data Scientist
Aug. 2014 - Aug. 2015 Mexico City, Mexico	Centro de Análisis e Investigación Económica (CAIE), ITAM Research Assistant
June 2014 - Aug. 2014 Chicago, IL. USA.	University of Chicago, Data Science for Social Good Fellow Data Scientist
Oct. 2013 - May. 2014 Mexico City, Mexico	Las Quince Letras Data Scientist
May 2011 - May 2013 Mexico City, Mexico	Ministry of Finance and Public Credit Research Assistant

TEACHING EXPERIENCE

Aug. 2011 - Mayo 2013 Mexico City, Mexico	Instituto Tecnológico Autónomo de México (ITAM) Teacher Assistant - Advanced Macroeconomics
--	---

RESEARCH AND PUBLICATIONS

- Petricioli, Carlos. "Detecting Collusion, Corruption, and Fraud". Data Science master's degree thesis, ITAM. Mexico City, Mexico. Feb. 2016. detecting-corruption.carlospetricioli.com
- Petricioli, Carlos. "Mexico from space: How to obtain, process and calibrate a time series of night light images to estimate the economic growth of the Mexican States" Economics thesis, ITAM. Mexico city, Mexico. June, 2015. <http://mexico-from-space.carlospetricioli.com>
- Petricioli, Carlos. "Mexico from space: How to obtain, process and calibrate a time series of night light images to estimate the economic growth of the Mexican States" Applied Mathematics thesis, ITAM. Mexico city, Mexico. June, 2015. <http://mexico-from-space.carlospetricioli.com>

Alstott, Jeff, Dylan Fitzpatrick, Carlos Petricioli, Misha Teplitskiy and Eric Rozier. “Detecting Collusion, Corruption, and Fraud” Proceedings of the Workshop on Data Science for Social Good in conjunction with KDD. New York, NY. August 24, 2014. <http://carlospetricioli.com/worldbank-poster.pdf>

Petricioli, Carlos, Ignacio Trigueros, Alejandro Hernandez and . “Analysis of the economic conjuncture”. Center of Analysis and Economic Research, ITAM. Mexico City, Mexico. Monthly publications. August 2014 to August 2015. Monthly publications.

Petricioli, Carlos and Ernesto Revilla. “Advanced Macroeconomics: Exercises and Solutions”. Teaching ITAM, ITAM. Mexico City, Mexico. April, 2013. http://carlospetricioli.com/Maco_Avanzada.ITAM.pdf

SCHOLARSHIPS AND AWARDS

Instituto Tecnológico Autónomo de México (ITAM), 2016. Awarded me an *Honorary Mention* for my thesis “Detecting corruption, collusion and fraud”.

Asociación de Instituciones para el Fomento de las Ciencias Espaciales Mexicanas (AIFOCEM), 2015. Awarded me an *Honorary Mention* for my paper: “Mexico from space: How to obtain, process and calibrate a time series of night light images to estimate the economic growth of the Mexican States”.

Instituto Tecnológico Autónomo de México (ITAM), 2015. Awarded me an *Honorary Mention* for my thesis “Mexico from space: How to obtain, process and calibrate a time series of night light images to estimate the economic growth of the Mexican States”.

National Council for Science and Technology (CONACYT), 2015. I was granted an \$90,000 USD annual award to create a National Art System for the publication of a Mexican Art digital library.

Instituto Tecnológico Autónomo de México (ITAM), 2014. I was granted a 100% scholarship for my Data Science master’s degree.

University of Chicago, 2014. Granted me an award for the Eric and Wendy Schmidt Data Science for Social Good Summer fellowship.

SEMINARS AND PRESENTATIONS

Mar. 2016
Mexico City, Mexico

Data day México

Title: *Mexico from space*

- Presenter at the event: “Data Day”.

<http://www.slideshare.net/RevistaSG/data-day-mexico-desde-el-espacio>

Nov. 2015
Culiacan, Mexico

Universidad Autónoma de Sinaloa

Title: *Mexico from space*

- Presenter at the event: “Foro Internacional para el uso de las ciencias espaciales para la prevención y mitigación de desastres” organized by the Mexican Association of Institutions for the Space Science Promotion (AIFOCEM), the Universidad Autónoma de Sinaloa (UAS) and the University of Virginia (UVA).

Oct. 2015
Turin, Italy

Politecnico di Torino - Castello del Valentino

- Honor guest in the event: “Challenges in Data Science: a complex systems perspective” organized by the Politecnico di Torino and the Kyoto University. An event to explore the intersection between Complex Networks and Data Science.

Sept. 2015 New York, NY	<p>DataPoint NYC Title: <i>Mexico from space</i></p> <ul style="list-style-type: none"> • Presenter at Google's DataPoint NYC. A set of conferences at NYC Google's headquarters where the data science community present projects that feature the newest applications and clever solutions by using data. https://www.youtube.com/embed/FiD_Kk_9Fsg?start=6292&end=6669&amp
Sept. 2014 Mexico City, Mexico	<p>ConDatos - Conference presentation Title: <i>Detecting corruption, collusion and fraud</i></p> <ul style="list-style-type: none"> • Presenter at ConDatos. It is the most important event in Latin America about open data. My presentation was an example about how to use open data to create social good.
Aug. 2014 Aug. 2014 New York, NY. USA.	<p>KDD - Poster session KDD - Conference Titles: <i>Detecting corruption, collusion and fraud</i></p> <ul style="list-style-type: none"> • Presenter at the 20th ACM SIGKDD Conference on Knowledge Discovery and Data Mining KDD 2014, a premier interdisciplinary conference, brings together researchers and practitioners from data science, data mining, knowledge discovery, large-scale data analytics, and big data. Data Mining for Social Good is 2014's special theme, highlighting work that contributes to social good.
Aug. 2014 Chicago, IL. USA.	<p>Marketplace - Data Science for Social Good Conference Title: <i>Detecting corruption, collusion and fraud</i></p> <ul style="list-style-type: none"> • Presenter at 1871, a tech incubator high above the Chicago River, to show off a new way for the World Bank to look for corporate collusion in development projects.
June 2014 Guadalajara, Mexico	<p>Dataton - Finalist presentation Title: <i>How to predict crime in the municipality of Zappan using social media</i></p> <ul style="list-style-type: none"> • Presenter at the finalist round. Dataton is a competition organized by the mexican government that involves using open data to help them make better desicions.
June 2014 Washington DC., USA.	<p>Data Sprint - World Bank Group Title: <i>Algorithms to analyze and visualize procurement data from the World Bank</i></p> <ul style="list-style-type: none"> • Organizer and presenter of the World Bank's Global Development Data Sprint, a collaborative data visualization project where anyone can fork code to visualize the same open data set, using the World Bank's Major Contract Awards dataset.

ADDITIONAL EXPERIENCE

2015, 2016 Chicago, IL. USA	<p>University of Chicago, Data Science For Social Good <i>Eric & Wendy Schmidt Data Science for Social Good fellowship</i> Admissions Committee</p> <ul style="list-style-type: none"> • Annual reviewer of about 100 profiles including Postdoc, PhD. and Master students.
Oct. 2013 Sept. 2011 Sept. 2010 Veracruz, Mexico	<p>Grupo Huatusco (by Javier Beristain Iturbide, Former principal of ITAM) <i>Table XII - Fiscal Reform</i> <i>Table IX - Education</i> <i>Table VIII - Productivity</i></p> <ul style="list-style-type: none"> • Youngest member of this forum about economic growth and development in Mexico.

COMPUTATIONAL SKILLS

Software	<ul style="list-style-type: none">• Advanced skills: L^AT_EX, R Statistics, Rstudio, Python, iPython, Git, Github, Shiny, Bash Programming, PostgreSQL, SQL, Qgis, Gis, PostGis, Hadoop, MapReduce, Spark, Chef, Google Analytics, Java, JavaScript, HTML,D3,Stata, Matlab, SPSS, Minitab and RATS.• Knowledge of: C, C++, Perl, Ruby, Ruby on rails, Processing, EViews, Adobe Photoshop y Adobe InDesign.
----------	--

ADDITIONAL INFORMATION

Languages	Advanced English.
Sports	Completed 18 Triathlons achieving one 2 nd and one 3 rd place of my age category.
Random	Recreational diving, traveling, photography and cooking.
Others	Great skills in teamwork.