

# IRVING GÓMEZ MÉNDEZ



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## Summary

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I am a mathematician that merges the experience in applied statistics and data science with a solid theoretical background in statistics (Regression, Inference, Multivariate Analysis, etc.) and machine learning (Random Forests, Neural Networks, SVM, Recommender Systems, etc.) who enjoys passing from theory to development of tech products.

A portfolio of past and current projects can be found at <https://irvinggomez.com/#projects>

## Computing Skills

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Programming Languages:	Python, Julia, R
Data Visualization:	Plotly, Tableau, Shiny, Ggplot2
Deep Learning:	TensorFlow
Big Data:	Pyspark
Other Data Analysis:	SPSS, Google Analytics
Other Languages:	L <sup>A</sup> T <sub>E</sub> X, HTML, CSS, SQL

## Professional Experience

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### OPI Analytics

#### Sr. Data Scientist

August 2020 - December 2020

- Development and improvement of end-to-end projects for sale's forecasts.
- Monitor and validation of building blocks.
- Automation of data science processes.
- Validation of pricing strategies.

### Centro de Investigación en Matemáticas

#### PhD Candidate in Probability and Statistics

August 2016 - December 2020

- Implementation of random forestes algorithms to handle data with missing values.
- Implementation of neural networks for recommender systems with partial information.  
*In collaboration with Inria Lille-Nord Europe.*
- Development of methodologies for detection of illegal traffic of species in America.  
*In collaboration with Cinvestav-Irapuato.*
- Teaching assistant in undergraduate and graduate subjects.

### MSc in Probability and Statistics

August 2014 - July 2016

- Design and development of a graphical user interface for inspection data in reliability.
- Implementation of methodologies for control quality with heavily censored data.
- Statistical consulting for the automotive industry, improving its warranty management.
- Reliability analysis for the food industry, increasing preference of consumers.
- Teaching assistant in undergraduate and graduate subjects.

# Academic Qualifications

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<b>PhD in Probability and Statistics</b> .....	2017 - 2021
Centro de Investigación en Matemáticas (CIMAT), Guanajuato, Mexico	
Thesis: <i>Random Forests and Autoencoders with Missing Data</i> , under the direction of Dr. Emilien Joly	
<b>Research stay</b> .....	2020
Institut National de Recherche en Informatique et en Automatique (Inria), Lille, France	
<i>Actively Querying Missing Information Using Neural Networks</i> , in collaboration with Dr. Jill-Jênn Vie	
<b>MSc in Probability and Statistics</b>	
Centro de Investigación en Matemáticas (CIMAT), Guanajuato, Mexico .....	2014 - 2016
<b>Mathematical Engineer</b> .....	2009 - 2014
Instituto Politécnico Nacional (IPN), Mexico City, Mexico	
Graduate by completion of master's degree credits	
<b>Exchange Student</b> .....	2012
Universidade Estadual de Campinas (UNICAMP), Campinas, Brazil	
Scholarship holder by the Instituto Politécnico Nacional (IPN)	

# David Sprott Award, 2015

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Annual prize granted by Centro de Investigación en Matemáticas (CIMAT) to the best master's exam in the area of statistics.

## Conferences Given

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12/2020
Hispanohablante Seminar, Guanajuato
<i>Consistency of a Random Forest Algorithm with Missing Entries</i>
03/2020
Inria Sequel Seminar, Lille
<i>Some ideas for random forests with missing values</i>
01/2020
TRIPODS workshop CIMAT-University of Arizona, Guanajuato
<i>Some ideas for random forests with missing values</i>

## Certifications

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<i>Google Analytics</i>
<i>Data Sets with SQL</i>
<i>SQL for Data Science</i>
<i>Statistical Analysis with SPSS</i>

## Languages

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Spanish	Native
Portuguese	Fluent
English	Fluent
French	Basic
Russian	Basic