

# Mario Becerra-Contreras

Applied mathematician – Data Scientist

Location: Mexico City

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## ABOUT ME

I'm an applied mathematician, data scientist and computer scientist. My main interests are statistical modeling, predictive modeling, data visualization and machine learning.

## SKILLS

### Statistics

GLMs, Bayesian statistics, PCA, spatial statistics, simulation, Bayesian networks, clustering, hierarchical/multilevel models

### Machine Learning and Data Mining

Random Forest, support vector machines, recommender systems, market basket analysis, association rules, Natural Language Processing, text mining, social network analysis, image processing, artificial neural networks, deep learning

### Programming languages and other technologies

R, Python, git, MATLAB, SQL, LaTeX, bash, C, C++, Java, Apache Spark, Apache Hadoop, Apache Hive, Keras, Tensorflow

### Finance

Interest rates, financial derivatives, fixed income products, structured finance, VaR

### Other

Linear programming, constrained and unconstrained numerical optimization, analysis of algorithms, business intelligence, finance, compiler design, distributed systems, computer architecture

### Languages

Spanish: Native

English: Highly fluent, almost native

French: Basic

## EDUCATION

### Instituto Tecnológico Autónomo de México (ITAM), Mexico City

Applied Mathematics B.Sc., 2010 – 2015

Elective courses from statistics, computer science and finance fields.

### Instituto Tecnológico Autónomo de México (ITAM), Mexico City

Computer Science M.Sc., 2016 – 2017

Dissertation thesis pending.

Note: Took 8 out of 12 courses offered in the Data Science master program at ITAM.

## EMPLOYMENT

### Data scientist at Business Data Evolution

*September 2017 - Present day*

Statistical modeling and predictive analysis in data science consulting company.

### Data scientist at CAD Salud

*May 2016 - June 2017*

Created predictive and inferential statistical models, as well as data visualization dashboards for data projects aimed toward health problems.

**Data Scientist at Grupo Salinas***October 2015 - May 2016*

Designed and built statistical/machine learning models for predictive and inferential analysis, and created data visualization dashboards for market research consulting.

**Junior Analyst at Best Day***June 2015 – September 2015*

Summer project involving customer analysis and market segmentation using association rule learning (market basket analysis).

**Data analyst at Computer Research and Analysis Laboratory, ITAM***June 2014 – June 2015*

Machine learning application in Natural Language Processing for automation in news classification for media monitoring company.

**Global Banking and Markets Intern at HSBC***December 2013 – May 2014*

Financial products pricing, financial products analysis, Excel spreadsheets creation for statistical analysis.