

# Mario Humberto Becerra Contreras

## *Curriculum vitae*

### CONTACT

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### ABOUT ME

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

### EDUCATION

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2015  
Instituto Tecnológico Autónomo de México (ITAM)  
*Applied Mathematics B.Sc.*

Elective courses from statistics, computer science and finance fields.

2017  
Instituto Tecnológico Autónomo de México (ITAM)  
*Computer Science M.Sc.*

Dissertation thesis pending.

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

### SKILLS

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#### *Statistics*

GLMs, Bayesian statistics, PCA, spatial statistics, simulation, Bayesian networks, clustering, hierarchical 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,  $\text{\LaTeX}$ , 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

### WORK EXPERIENCE

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SEPTEMBER 2017 - PRESENT DAY

Data scientist

#### *Business Data Evolution*

Statistical modeling and predictive analysis in data science consulting company.

MAY 2016 - JUNE 2017

Data scientist

#### *CAD Salud*

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

OCTOBER 2015 - MAY 2016

R&D Analyst

#### *MetronHomo, Grupo Salinas*

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

JUNE 2015 - AUGUST 2015

Junior Analyst

#### *Revenue Management, Best Day*

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

JUNE 2014 - JUNE 2015

Data analyst

#### *Computer Research and Analysis Laboratory, ITAM*

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

DECEMBER 2013 - MAY 2014

Global Banking and Markets Intern

#### *HSBC*

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