Mario Becerra-Contreras

Applied mathematician – Data Scientist – Computer Scientist
Location: Mexico City

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My main interests are statistical modeling, predictive modeling, data visualization and machine learning.

EMPLOYMENT

Data scientist at Banco Azteca
October 2018 - Present day
Analyze data for the marketing and CRM teams of the bank.
- Campaign analysis and A/B testing.
- Predictions of future bank transactions.

Data scientist at Business Data Evolution
September 2017 – September 2018
Developed models both for prediction and for inferential analysis in data science consulting company.
- Performed statistical analysis, exploratory data analysis and developed models in R.
- Created data visualization dashboards using Rstudio's Shiny.
- Analysis of predictive models using Individual Conditional Expectation (ICE) and variable interaction quantification.
- Deployed final predictive models in Microsoft Azure VM and Azure Machine Learning.
- Developed Bayesian predictive model for small black and white documents belonging to 4 classes.
- Developed a Bayesian time series demand prediction model for a national grocery store.
- Met with clients to understand their problems and needs, as well as presenting intermediate and final results.

Data scientist at CAD Salud
May 2016 - June 2017
Built predictive and inferential statistical models for health projects.
- Performed statistical analysis, exploratory data analysis and developed models in R.
- Created data visualization dashboards using Rstudio's Shiny.
- Created simple predictive model for potential diabetes patients in public hospitals.
- Generated spatial mathematical model for vaccines demand in public hospitals in Mexico.
- Aided in the creation of multivariate index to rank public hospitals.

Data Scientist at Grupo Salinas
October 2015 - May 2016
Designed and built statistical and machine learning models for predictive and inferential analysis in market research.
- Performed statistical analysis, exploratory data analysis and developed models in R.
- Created data visualization dashboards using Rstudio's Shiny.
- Aided in creation of predictive model of loan origination clients in a Mexican bank.

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.
- Cleansed news articles data for modeling, mainly using R.
- Created different predictive models for automatic news classification in Python using Scikit Learn.

EDUCATION

Master of Science - Computer Science, 2017
Instituto Tecnológico Autónomo de México (ITAM), Mexico City
Took elective courses from the Data Science master program.

Bachelor of Science - Applied Mathematics, 2015
Instituto Tecnológico Autónomo de México (ITAM), Mexico City
Took elective courses from statistics, computer science and finance fields.

SKILLS	**Statistics** GLMs, Bayesian statistics, PCA, spatial statistics, simulation, Bayesian networks, clustering, hierarchical/multilevel models, A/B testing, time series analysis **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, Apache Impala, Keras, Tensorflow, Cloudera **Finance** Interest rates, financial derivatives, fixed income products, VaR **Other** Linear programming, constrained and unconstrained numerical optimization, analysis of algorithms, business intelligence, compiler design, distributed systems, computer architecture **Languages** Spanish: Native English: Native-like competence and accent French: Basic