

ACADEMICS

M.S. in Data Science (Dec 2016, Columbia University, GPA 3.65)

- Algorithms, Machine Learning, Bayesian ML, NLP, Data Visualization, GIS & Spatial Analysis, Distributed Computing.
- Capstone Project (Goldman-Sachs): Use text similarity measures and deep learning tools to quantify changes on financial reports from the SEC.

B.Sc. in Economics (Dec 2009, ITESM, GPA 3.5)

- Econometrics & Time Series, Multivariate Analysis, Statistics, Mathematics for Engineering, Linear Algebra.

Certified Risk Manager (Jan 2014)

- Certified Financial Risk Manager (FRM) by the Global Association of Risk Professionals (GARP).

WORK EXPERIENCE

Data Science Consultant at Kora Management LP. (June – Dec 2016, NY)

- Web-scraped data related to companies, then aggregated and analyzed it with Spark (on AWS EMR).
- Applied feature engineering on this data to build unsupervised learning models to track companies' performance.
- Performed statistical analysis and inference on survey data.
- Implemented a text polarity tweet classifier that downloads the data, stores it on MongoDB, analyzes it and displays the results on an interactive shiny app.

Data Science Intern at Trinnacle Capital Mgmt. (Feb – May 2016, NY)

- Used AWS to built HDFS and SQL databases.
- Created a model to identify short-term investment opportunities using historical minute-frequency data for the last 10 years.
- Created a model and shiny app that uses mobile GPS data to predict quarterly revenues for several companies.

Senior Associate at MSCI (Jan 2010 – Aug 2015, MX)

- Built and managed the Market Data Productions team, leading 3 analysts.
- Developed interactive Spotfire dashboards used by analysts to perform daily QA on >10,000 time series.
- Developed automated reporting scripts in R for risk models validation.
- Coordinated projects with the global Research and Project Management teams.

DATA SCIENCE PROJECTS (masta-g3.github.io)

Geospatial Analysis of Gentrification in NYC (Dec 2015): Using social and economical geo-data (*R*, *QGIS*, *CartoDB*).

CULPA Sentiment (Feb 2015): Sentiment analysis and visualization of academic course ratings (*Python*, *HTML*, *D3*).

MoMA Through Time (Feb 2015): HTML visualization of exhibitions patterns on the museum; awarded best of the contest (*R*, *HTML*, *D3*).

Summer Networks (Summer 2016): Several tutorials and experiments on Neural Networks, on my attempt to build a RNN that can write short poems (*python*, *theano*).

VOLUNTEER WORK

TA for Columbia's edX courses:

- Statistical Thinking for Data Science and Analytics (Dec 2015 – Jan 2016).
- Machine Learning for Data Science and Analytics (Jan – Feb 2016).