

## **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](https://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).