# Carlos Espino

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### **EDUCATION**

Columbia University, New York, USA

**Master of Science in Data Science** 

Degree Expected, Dec 2016

GPA: 3.77

Relevant Coursework: Algorithms, Statistical Inference and Modelling, GIS Spatial Data Analysis, Machine Learning for Data Science, Computer Systems for Data Science, Exploratory Data Analysis and Visualization

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

**Bachelor of Science in Applied Mathematics** 

Aug 2008 - Dec 2012

2014

**Graduated with College Honors** 

Thesis: "Spherical k-means Clustering Analysis to Prove Positive Spatial Autocorrelation: An Application to the Marginalization Index in Mexico"

Member of the Mathematics Student Council

Relevant Coursework: Numerical Optimization, Statistical Learning, Bayesian Statistics, Machine Learning, Time Series Analysis, Survival Analysis

#### PROFESSIONAL EXPERIENCE

Sinnia, Mexico City, Mexico

Data Scientist 2012 – 2015

Sinnia is a social network analysis bureau (www.sinnia.com/en) that makes use of social media data, mainly from Twitter, to help its customers maximize their brands, focus and control potential crisis, boost their sales and seek potential audiences.

Constructed a statistical model to predict box-office revenues using data from Twitter.

Contributed to Sinnia's web application by designing data visualization tools, building interactive plots using D3 and creating a data service that provides analytics using Spark.

Implemented community detection algorithms to identify groups in conversation and friend networks.

Implemented topic models (LDA) to detect subjacent conversation topics in Twitter conversations.

Developed a recommender system algorithm for a Mexican Cineplex, thus enabling them to recommend films to costumers.

Developed an automatic report system for Twitter monitoring using LATEX and R.

#### **COURSES AND CERTIFICATIONS**

Johns Hopkins University via Coursera

Data Science Specialization 2015

Coursework: The Data Scientist's Toolbox, R Programming, Getting and Cleaning Data, Exploratory Data Analysis, Reproducible Research, Statistical Inference, Regression Models, Practical Machine Learning, Developing Data Products

Massachusetts Institute of Technology via edx

Tackling the Challenges of Big Data 2014

Carnegie Mellon University

Machine Learning Summer School 2014

#### **PROJECTS**

Honest Web, link: http://honest-web.mybluemix.net

Q&A for Watson Course 2014

Implemented a prediction algorithm to detect fake reviews and created a dashboard to visualize and analyze the behavior of fake reviews by hotel.

Tourism in Mexico, Finalist, Link: http://www.josesotelo.com/dataton/

## Mexico National Data Science Competition

Led a team of peers in building an interactive dashboard that provides useful information about tourism in Mexico using data from 9 million tweets in Mexico.

### SKILLS

Languages: English (Fluent), Spanish (Native)

Technology: R, Python, Scala, Apache Spark, Java, MySQL, MongoDB, Ruby on Rails , Javascript, HTML