**Yesika Contreras Duarte**

*Chicago, IL*⎟ *414- 731-1400*⎟[yesika.contrerasd@gmail.com](mailto:yesika.contrerasd@gmail.com)⎟[www.linkedin.com/in/yesikacontreras](http://www.linkedin.com/in/yesikacontreras)⎟ *No Visa Sponsorship Required*

**PROFILE**

Bilingual Industrial Engineer with a Master's degree in Business Analytics and management experience. Highly motivated to combine business management, operations research and data analysis to provide actionable and profitable business insights.

**EDUCATION**

**Master of Science, Business Analytics Dec 2017**

*University of Illinois at Chicago (UIC) – Liautaud Graduate School of Business - GPA: 3.8 /4.0* Chicago, IL, USA

**Bachelor of Science, Industrial Engineering Dec 2013**

*Universidad Industrial de Santander (UIS) - GPA: 4.1/5.0*  Bucaramanga, Colombia

**ADDITIONAL SKILLS**

* Data Analytics, Machine Learning, Business Analytics, Data Mining and Data Visualizations, Natural Language Processing. Predictive Modeling, Regression, Classification, Clustering, Time-series Forecasting, Text Analytics, Random Forest, Neural Networks, K-Nearest Neighbors. Apache Hadoop, Hive, and Mahout. Lean Six Sigma Methodology, Agile Project management, Quality Control, Statistics, Operation Research.
* *Programming languages/Software:* SAS Studio, Python, Java, R Studio, MySQL, MS Office, MS Project, MS Visio, Tableau, Hadoop.

**PROJECTS**

**Sentiment Analysis of Twitter and the Financial Market,** *Tools: MySQL, Advanced Excel (pivot tables)*

* Analyzed the impact of twitter feeds on stocks of NASDAQ 100 companies. Complex querying was performed to identify patterns in Twitter peaks and earning releases on trading volume by company.

**Statistical Analysis on Financial data,** *Tools: R Studio*

* Developed a predictive and a time-series forecasting model for Entertainment Cruises Inc. Analysis was performed by market segments were factors and trends that affect revenue were identified. Dataset consisted of 570,000 observations and 26 variables.

**Credit Risk Analysis,** *Tools: R Studio*

* Developed a decision tree to analyze German Credit Data. The scoring rules formulated were used to determine if a new applicant is a good or bad credit risk by using algorithms like Entropy and Gini Index. ROC curve and confusion matrix were calculated.

**Chicago Crime Data Analysis,** *Tools: Hadoop Apache Hive and Tableau*

* Performed an analysis of the volume, frequency, and types of crime that occur in Chicago from 2001 to 2017 to identify areas most affected by crime. Apache Hive queries were used for performing computations. Tableau was used to create visualizations.

**Airline Performance Analysis,** *Tools: Tableau*

* Analysis of American Airline On-time performance to identify meaningful patters and trends for 12 months, presented through dashboards and a story on tableau. A comparative study was performed to estimate the competitive target airline.

**Factor Analysis and Cluster Analysis,** *Tools: SAS Studio, Excel (Macros)*

* Used Demographic data of the U.S. to approach for sales. The original 33 variables were rearranged into 5 meaningful factors using factor analysis. Cluster analysis was executed using the K-means technique to obtain the best target group. Used Logistic Regression classification model to predict sales. Profit and ROI programming and Charts for cost and revenue were analyzed.

**EXPERIENCE**

**Morningstar Inc., - Data Science Capstone Project,** Chicago, IL **Aug 2017 - Dec 2017**

* Natural Language Processing (NLP) project using python focused on the creation of a vocabulary of words and phrases, that match the Morningstar data service API descriptions with the Morningstar publications to optimize their internal search engine.
* Indexed the extracted vocabulary using document IDs and TF-IDF values. Identified a contextual stop-word list using TF-IDF values. Implemented three different versions of a search engine using Boolean /TF-IDF/BM25 search ranking schemes. Worked with Neural Network modelling techniques like Word2vec and woxrd2phrase to analyze sets of words.

**Madison Street Capital (MSC) – Business Development Intern,** Chicago, IL **Jul 2017 - Sept 2017**

* Performed an Industry research sourcing for potential partners that share MSC’s practices and niche market. Gather and validate data using MS Excel. Update the CRM with the data collected. The final dataset included Law, Private Equity, and Accounting firms.

**CIDLIS, UIS - Project Manager and Researcher,** Bucaramanga, Colombia **Aug 2014 - Apr 2015**

(Center of Innovation and Development for the research in System Engineering (CIDLIS), Research Groupof UIS)

* Used Agile Methodologies to support the research team and manage their projects. Developed the strategic plan for the group.
* Worked on the project “Agile School Model, Support in Information Communication Technology”, gathering information about the classroom performance and generating insights from this data.

**UIS, HR Department – Business Analyst Assistant**, Bucaramanga, Colombia **Dec 2013 - Jun 2014**

* Developed a salary structure model for the Caja de Previsión Social of the Universidad Industrial de Santander (CAPRUIS). The model included the formulation of a salary hierarchy for the positions and the promotion system for the organization.

**CIDLIS, UIS – Assistant Engineer,** Bucaramanga, Colombia **Apr 2014 - Jun 2014**

* Developed the standards for two practices: “Pre-count” and “Registration of the candidates” for the Presidential Elections in Colombia, 2014, to be used by the auditors of the National Civil Registry to collect and to store vital statistics and control the elections process in real time.