## **Miguel Niblock**

Data Scientist/ Analyst

## **Summary**

Experienced in accounting and the media industry. Do **not** require visa sponsorship and willing to relocate.

### **Personal Info**

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## **Skills**

#### **Machine Learning:**

- Supervised and Unsupervised Machine Learning with Python in Jupyter Notebooks.
- · Classification and Regression.
- Hyper-parameter tuning.

#### **Natural Language Processing:**

- Latent Semantic Analysis: TF-IDFVectorizer Feature Extraction and Singular Value Decomposition.
- Tokenization, Lemmatization, Regex String Methods, TextRank, Word2Vec, Sense2Vec.

#### **Python Packages:**

- Sci-kit Learn, Pandas, Numpy, Seaborn, Matplotlib, Keras Neural Networks. ImbLearn.
- Spacy, NLTK, Gensim, Polyglot.

#### **Business Intelligence Tools:**

 Tableau, Google Analytics, Google Data Studio, Adobe Reports, Adobe Analysis Workspace, dashboards.

#### **Oral/ Written Communication:**

- Product-focused presentations of technical material in plainlanguage.
- Talented exercise of political diplomacy in corporate culture.

#### Data Cleaning/ Processing:

 Missing data, Class-Imbalance, Binarization, Discretization, Feature Engineering / Selection.

## **Experimental Design:**

 A/B Tests, Research Proposals, Defining Key Metrics, Evaluation and Rollout Plans.

#### Other:

- PostgreSQL and SQLite.
- Git. Github version-tracking.
- Linux OS & Command Line.
- Advanced Microsoft Excel.
- Spanish- 100% Written & Verbal

## **Recent Projects**

## Deep NLP: Predicting Ad Demand. < Python>

github.com/MiguelNiblock/Deep-NLP\_Predicting-Ad-Demand

- Predictive model for estimating the deal probability of online classified ads.
- Used PLSR Cross-Decomposition on IDF matrix with Ngrams.
- Big Data: Implemented a memory-management script for successful batch cross-decomposition of a 64k-feature CSR matrix with 1.5Million datapoints.

# Imbalanced Classification: Detecting Credit Card Fraud. <Python>github.com/MiguelNiblock/Supervised-Learning\_Credit-Card-Fraud

- Identifying fraudulent transactions in a highly unbalanced dataset.
- Implemented SMOTE: Synthetic Minority Over-Sampling Technique.
- 100% Recall and optimization of specificity via custom scoring functions.

## Research Proposal: Mental Health in Tech. < Python>

github.com/MiguelNiblock/Research-Proposal Mental-Health-in-Tech

- Investigative exploration of causes for mental illness in tech employees.
- Identification of problem and solution, key metrics, evaluation, roll-out plan, scenario planning.

## **Recent Experience**

**THINKFUL** 

Dec 18'- Jun 19'

#### Fellow Data Scientist

- Developed Machine Learning models under the mentorship of an industry professional.
- Produced Jupyter Notebooks of high quality Python code.
- Presented project and outcomes to a live audience in a product-focused manner, effectively conveying highly-technical information in plain language.
- Wrote complex SQL queries, involving new 'Window' functions.
- Set up a PostreSQL database in Linux.
- Skillfully manipulated large and noisy datasets in preparation for modeling.

#### VIACOM

Dec 17'- Dec 18'

### **Accounting Data Manager**

- Designed and deployed a Digital Time Card automated system; this eliminated manual errors and decreased turnaround times by 300% in payroll processing.
- Integrated the reporting of daily labor costs ("Hot Sheets") into abovementioned system, reducing Hot Sheets processing time by 50% and achieving data consistency across reports.
- Maintained construction budgeting system by routinely updating labor rates for all necessary labor unions, successfully preventing errors when scaling labor sources.
- Played key role in managing the department's relationship with key figures inside the company, contributing to extension of the team's contract.

## **Education**

## CALIFORNIA STATE UNIVERSITY, NORTHRIDGE Bachelor Degree: Electronic Media Management

May 12'- May 17'

- <u>Major Coursework:</u> Audience Analysis, Business Law, Media Regulations, Post Production Management.
- <u>CS/ Math Coursework:</u> Statistics, Algorithms, Calculus, Linear Algebra, Data Structures.