Raúl Maldonado

✆ +521 (55) 7559 1205 • ✉ maldonadoraulqro@gmail.com

🌐 freekfield.co • ⌂ github.com/margalordyzd • Ⓜ medium.com/@raulmargaritomaldonado

Engineer with over 3 years of experience in industries like Telecommunications, Software Processes and research institutes in different parts of Mexico and Germany. Last 2 years as a Data Scientist, with experience in Data Management, Data Quality, Business Intelligence, Data Visualizations, Image/Video Recognition and Machine Learning/Deep Learning.

Professional summary

- 3+ years as a Statistical Modeler
- 2+ years as a Data Scientist
- 2+ years as a Data Engineer
- 6 months as a Blockchain Developer

Professional training

DeepLearning.ai and NVIDIA DLI, *Deep Learning Specialization* **Online**
Deep learning theory, regularization, tuning and optimization. *2018*

Udacity, *SQL for data analysis* **Online**
SQL data management, warehousing and processing. *2017*

Udacity, *Machine Learning Nanodegree* **Online**
Specialization course on machine learning and deep learning. *2017*

Packt E-Learning: Test driven Development with python *2018*

School of AI: Decentralized Applications *2018*

MIT: Micro and Nano Fabrication *2015*

Experience

Data engineer & Data Scientist **freekfield.co**
An artificial intelligence consultancy that extracts insights from data and
creates value for its customers *Jul 2017 - Now*

Responsibilities:

- Conversing with possible clients to identify their needs, roadblocks and opportunity areas.
- Working with cross functional teams coordinating the design and development of the product based on relevant KPIs and metrics to measure progress and impact.
- Creating and managing several ETL pipeline infrastructures.
- Managing the implementation of autonomous products in responsive web interfaces, created by merging technologies such as java, javascript, CSS, HTML5, and UX-Design.

Data Engineer & Data Scientist **Intelimetrica**
A business intelligence company focused on real estate. *Aug 2016 - Jun 2017*

Projects and responsibilities:

- Machine Learning optimization of the delivery routes of soda drinks in Bogotá, Colombia.
  - Organizing a team of 3 data scientist and serving as the interface between them, the client and the development team.
  - Performing a 3-month split-test experiment analyzing the results under actionable metrics.
  - Communicating the results of the experiment in a simple way for the clients.
- Machine Learning real estate price estimation model for all Mexico.

- Analyzing the weaknesses and roadblocks of previous models and proposing innovative ideas.
- Prototyping Machine Learning models and defining actionable metrics for them.
- Several web scraping tasks gathering big amounts of data from different sources automatically.
- Creating several pipelines to perform the ETL flow of information, outlier detection model, unit testing and automatic execution and monitoring.

Design & Control Engineer(Internship) **INDI**
Design of the control system of an exoskeleton. *Jan - Jul 2016*

Mechatronic and Smart Data Engineer (Internship) **Fraunhofer Institute, Germany**
Vision system and mechatronic implementation of a Sorting Machine. *Jul - Dec 2014*

Responsibilities:

- Prototyping and designing the construction of a sorting machine.
- Interacting with a cross functional team to create the final product.

Projects and Awards

RentAi: *NextAi's accelerator finalist.* **Nextcanada.com**
Managed the design of a product that validates and matches Tenants and Landlords
to create smart long-lasting renting contracts. *Sep 2017 - Feb 2018*

Responsibilities:

- Networking with several people around the world in order to put together a cross functional team of business, development and artificial intelligence experts.
- Performing a thorough market demographics research about the housing problems of Toronto.
- Defining the roadmap, growth-engine and minimum viable product.
- Managing and building the data warehouse and mathematical algorithms.

Video analysis for emotion recognition, **IBM Watson's hackathon**
Created a product to detect emotions in order to get data about the
user experience of customers in retail stores. *Jul 2017*

Responsibilities:

- Defining the problems we wanted to solve to help retail stores improve customer satisfaction.
- Creating a strategy to test the impact of new marketing campaigns and changes in product features with appropriate KPIs and meaningful metrics.
- Building a Deep learning solution and a final product merging the AI model with a user-friendly web interface.

Trinity: *The trading assistant bot.* **freekfield.com**
A trading assistant bot to take advantage of the increasing popularity of crypto-currencies. *2017*

Responsibilities:

- Establishing market hypothesis and creating the roadmap for the MVP.
- Developing a statistical time-series forecast of a cryptocurrency using neural networks.
- Selecting a small focus group to test the product and iterate based on the feedback.

Self-Driven Drone: *Robochallenge 1st Place.* **Robochallenge, Rumania**
Won the first place in the world cup for the best self-driven air-drone. *Aug 2015 - Dec 2016*

Responsibilities:

- Creating a cross functional team of 4 people of mechatronic, marketing and aeronautic experts.
- Defining a 1 year roadmap of the weekly working hours and budget needed for the Rumanian competition.
- Implementing the computer vision and navigation system to beat the other competitors.

Articles

Clustering Algorithms in the delivery system:
https://medium.com/@raulmargaritomaldonado
White Paper: CryptoAds - A decentralized advertising system:
https://github.com/margalordyzd/CryptoAds/blob/master/white_paper/CryptoAds_white_paper.pdf
Hybrid Modelling and Simulation of an Inverted Pendulum using Discrete State Space Analysis
https://github.com/margalordyzd/Diplomas_Certificates/blob/master/pendulo.pdf

Education

Tecnológico de Monterrey   **Monterrey, México**
B.s. Electronic engineering,   *2011 – 2016*

HWAtech Berlin, *automotive summer school*   **Berlin, Germany**
Automotive engineering intensive course —diploma attained.   *Summer 2014*

HsKa, *renewable energy program*   **Karlsruhe, Germany**
Diploma on renewable energies storing, production and in-depth theory.   *2014 (Jan–Jul)*

Languages..

Spanish(Native), **English**(Proficient), **German**(A2:Basic)

Technical Abilities..

Programing Languages		
Language	Years of experience	Level
Python	3	Advanced
SQL	2+	Advanced
Javascrypt, Node	1	Basic
Spark	<1	Basic
Java	<1	Basic
Solidity	<1	Intermediate
Go	<1	Basic
R	1	Basic
C++	1	Basic