

## Ramón Osvaldo Guardado Medina

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### Career Summary

Osvaldo Medina is a Ph.D. in Information Technologies for the University of Guadalajara (CONACYT Scholarship). He has 16 years of experience and has participated in different industries and educational institutions since 1999. Osvaldo has advanced skills in research on image processing, telecommunication systems, and electronics systems. Worked on a postdoctoral stay at CINVESTAV Guadalajara from 2018 to 2020

### Summary of Qualifications

#### Operating systems

- Debian/Ubuntu
- RHEL/CentOS
- Windows
- IOS

#### Containerization

- Docker

#### Databases

- MySQL
- PostgreSQL

#### Programming

- Shell scripting (Bash, PowerShell)
- GitHub, GitLab,
- BitBucket
- Python
- R

- Matlab, Octave
- Data Science tools.
- Neural Networks
- Advance Classifications
- NPL
- Convolutional Neural Networks
- Recurrent Neural Networks
- Deep Learning

#### Python Libraries

- Pandas
- Numpy
- Sklearn
- Keras

- Tensorflow
- Pytorch
- Seaborn
- Matplotlib
- Pickle
- Scipy

#### Cloud platforms

- GCP

#### Sysadmin

- OpenVPN

#### Support / Collaboration

- Jira + Confluence
- Agile

### Languages

- Spanish (native speaker)
- English (intermediate B2)

### Career History

#### GLOBANT, Guadalajara

June 2021 – Current

#### Smart -CV

The principal target was to classify all CVs and obtain each candidate's primary and secondary skills, in Globant during the process was used the preprocessing technique to detect language, Tokenize, Apply to stop words, splits English/non-English resumes, and score similarity language. After that was used exploratory data Analysis with topic detection keyword density most freq words n-grams, In the next step was used Similarity Factory with similarity cosine, similarity corpus vs SSM Create organic labels, finally was used Training Models (SVC, LSTM), Evaluate Performance, Hyperparameter Tuning, get top performance models and pass new observations.

#### Key Technologies:

- *Technical Leader*
- *Build the architecture for the Application*

- *Convert files to text*
- *Preprocessing text*
- *Build training and test model (RNN)*

### **Compartamos Banco**

In this project the principal target was to apply a training model, which was provided for the client, and build a predictive model for obtaining information about the risk of the bank providing credit or not, it was used an ML technique to obtain the best results. I worked with a Cloud engineer and we used MLOPS Technique to develop, train and deploy ML models with automated procedures.

#### **Key Technologies:**

- Cloud Functions
- deployment of models
- Machine Learning Techniques.

### **Digital-Sobriety-Team**

In the first approach, an infrastructure was used to measure variables for energy consumption, in the first instance Cypress is used as a test automation tool, for the backend Node.js, with a MongoDB-based database, react is used for the frontend. On the other hand, docker is used to obtain the different components and thus recompile the variables of CPU, Memory, Networks I/O Disk I/O and PDIs, derived from the runs carried out in the docker, by means of docker stats, datasets are generated which are that each one of them is preprocessed to later apply descriptive statistics and have a correlation of study variables.

#### **Key Technologies:**

- Data Visualization
- Docker Statistical
- Convert Electrical Energy to Co2 consumption
- Machine Learning Techniques.

### **Coppel S.A de C.V, Guadalajara, México**

*Data Scientist*

Jun. 2020 – May. 2021

#### **Key Technologies:**

- Machine Learning Techniques.
- Deep Learning
- Artificial Intelligence.
- Building models for:
- Customer purchasing behavior (RFM)
- Recommendation systems with artificial neural networks.
- Scorecard risk for new customers
- Dynamic pricing for seller's competition (Buy box)

### **IBM, Guadalajara, México**

*Data Scientist*

**Key Technologies:**

- Artificial Intelligence.
- Build image processing algorithm on mammograms for IBM Watson.
- Cognitive Build SME.
- Research.

*Program Manager*

- Control all resources allocated to the project to meet the objectives set.
- Garage Method (Learn, Discover, Envision, Culture, Develop, Reason, Operate)
- Agile Techniques (DevOps, Operations, Product Ownership, Program, Iteration, Management)
- API Management

**U de G, Guadalajara, México**

Agu. 2008 – Sep. 2020

- *Lecture Professor*
  - Director of the thesis (Bachelor's and Master's degree).
  - Machine Learning.
  - Data Mining and Data Warehouse.
  - Neural Networks.
  - Big Data.

**Education**

**CINVESTAV, Guadalajara, México**

Jul. 2018 – Jul. 2020

Post Doctorate in Computer Science. Research: "Use of information theory to study deep neural networks".

The research proposes to understand and extend the use of information theory and Markov chains for the development of optimal architectures.

**U de G Guadalajara, México**

Feb. 2012 – Jan. 2017

Ph.D. in Information Technologies. Thesis: "Intelligent detection of microcalcifications in mammography based on diffuse techniques".

This thesis proposes a novel hybrid model to detect microcalcifications in early stages based on mathematical morphology and entropy techniques.

**ITCG, Cd. Guzmán, México**

Agu. 2003 – Jan. 2006

Master's degree in Electronics systems. Thesis: "Spectrum-temporal analysis of electrocardiogram leads"

The aim was to create hardware with DSP and digital filtering and analyze twelve leads in electrocardiography

**ITCG, Cd. Guzmán, México**

Bachelor's degree in electronics systems: Thesis: Control of the robot arm in closed-loop using PID control

The research proposes to understand and extend the use of information theory and Markov chains for the development of optimal architectures.