# Marco **DE LOS SANTOS H** Data Scientist | Physicist

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San Nicolás de los Garza, N.L., Mexico

i Place and Date of Birth: Mexico, February 1994 (27 years)



Data Scientist with 4+ years of Experience in the fields of Data Management and Data Analysis. Open to learn new things and ideas. Ability to analyze systems and data, teach, solve problems and work in team. I'm interested in Physical and Computational Sciences, Statistics, Software Development, Artificial Intelligence (Machine Learning and Deep Learning), Data Integration, Business Intelligence, Mathematical Modeling and Computer Vision. Commitment with professional ethics, responsible, patient, attentive (helpful) and moral conscious. Communication skills, organized and precise, I also have a strong aptitude towards self taught and research-related work.

Currently I develop Analytics, Data Management and Integration at Tec Milenio, building the foundations for an Analytics Platform that will gather, process and consume data from various modules of a LXP (Learning Platform).

# Skills and Tools

Skills Data Science/Analysis, Data Visualization, Process Automation, Data Wrangling

REST API, Deep Learning, Machine Learning, ETL-ELT, Database Development

Programming Python 3, R, Java, SQL, bash

Python Frameworks numpy, scipy, sk-learn, keras, tensorflow, pandas, seaborn, Flask

R Frameworks baseR, tidyverse, lubridate, tidymodels MySQL, PostgreSQL, MongoDB, dbt Data Bases

> Software Tableau, Power BI, KNIME, MS Excel, MS SharePoint, git Cloud GCP Big Query, Snowflake, Fivetran, Azure ML Studio

Operating Systems Mac OS X, Windows Server, Linux



#### PROFESSIONAL EXPERIENCE

# Present July 2021

#### Data Scientist | Digital Transformation Department, TEC MILENIO, Mexico

- > Ttechnical lead in the implementation of a Modern Data Stack: Fivetran (EL/Replicator) + Snowflake (DWH) + dbt (Transformation/Modeling) + Tableau (Viz)
- > Data Collection and Analysis, mostly in e-learning platform related topics
- > Data Modeling and Pipeline Design and Maintenance in Snowlflake + dbt
- > Support in the design of Data Products for e-learning applications
- > I also belong to the Data Governance Team, working with the compliance of Data Regulation and Best **Practices**

Python 3 | R | SQL | Snowflake | dbt | Tableau | Fivetran | PostgreSQL | Azure ML Studio | Open Web Scraper |

#### June 2021 October 2020

# Data Scientist | Data Science Senior Developer, KALYPSO, Mexico

- > Data Pipeline Engineering
- > Exploratory Data Analysis
- > Development of predictive models using ML
- > Linear and Non-Linear optimization of ML Models for prescriptive purposes

Python 3 pandas sk-learn scipy seaborn PostgreSQL Power BI

# October 2020 August 2019

# Data Scientist | HR Reporting & Analytics - Strategic Workforce Planning, PEPSICO, Mexico

- > Turnover/Churn Analysis for NFL employees
- > Made some python utilities to work with NLP using LDA, Sentiment Analysis and Translators with labor/environment surveys
- > Data Analysis for Insight finding with Human Capital Information
- > Experiment Design and Hypotheses Testing
- > Collaboration with Global teams to implement new technologies and data science best practices
- > Implementation and Coordination of a HR Function in a GBS (Shared Services) framework for doing analytics with Human Capital Information provided to countries in LATAM.
- > Key Contributor in the stabilization of SLAs (Delivery Time) from 60 to 99.9% in 3 months.
- > Automation of 80% of the operation reports with the creation and maintenance of a data pipeline made with Python and Pandas.
- > Coordination of creation and maintenance of Executive Dashboards in Tableau showing Human Capital Information such as People Cost, Diversity, Equity, Turnover Analysis for Talent Acquisition, etc.
- > Validation of Information Quality in development databases with R scripts.

Python 3 pandas R tidyverse Teradata Tableau Power BI MS SharePoint Azure Web Services

#### August 2019 June 2018

# Data Scientist | Digital Transformation and Innovation Department, AXTEL, Mexico

Design and implementation of prototypes using emergent technologies, specially automation and analytics in order to help and improve various tasks and assignments of the different departments in the company.

- > Developed a Back-End project that collected information from several routers of the different carriers of the company via ssh and consolidated this information in a mySQL database to then expose its analytics in a website via an API made with Python Flask.
- > Developed a detector and classifier of manufacturing pieces with computer vision (opencv) and deep learning open-source libraries (tensorflow/keras) within a co-creation framework. In this project I used several CNN architectures together with other cv techinques such as Template Matching, Thresholding, Morphological Operations, etc., and embedded systems, Raspberry pi and Arduino.
- > Mentored other department teams in their study of python and data analysis.

Python 3 Pandas sk-learn scipy seaborn mySQL OpenCV Keras RaspberryPi Flask SQL

## June 2021 October 2020

#### BI Analyst Jr., Axity, Mexico

- > Support in Oracle and SAP tools such as Modeling in SAP Business Objects (Information Design Tool, WebIntelligence).
- > Data flow analysis and quality assurance between Databases (ETL) in Oracle Data Integrator.
- > Data Analysis and manipulation in Oracle Essbase (EAS).
- > Financial data analysis and validation.

Oracle | SQL | Oracle Data Integrator | SAP Business Objects

# LANGUAGES



- > Passionate about Science
- > Self Taught
- > Autonomous
- > Consice and Precise
- > Analytical



B.Sc. in **Physics**, Computational Physics Orientation, **Universidad Autonoma de Nuevo Leon**Undergraduate Project in Molecular Dynamics | Advisor: Sergio Mejía
Phase transition study of Mono-Metallic bulks via Molecular Dynamics

## PROJECTS

SIMPLECONVTRAINER 2019

#### github.com/positronn/SimpleConvTrainer

A simple CNN trainer optimized for vision purpousses: fast for prototyping in a simple way. What I use this program/utils for is to explore the hyperparameter tunning space in a broad way, then choose some prospective model and continue the hyperparameter adjustment in a more detailed manner.

OpenCV Keras scipy matplotlib