Miguel A. Gutierrez
Data Scientist

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Data Scientist with 5+ years of experience in Machine Learning models for predictive purposes, time series forecasting and regression models, combined with proficient statistical techniques (hard mathematical skills) to improve the data analysis. I have experience with Azure and GCP, MLOps, Docker, agile environments, and GIT as a collaborative tool. I like to work with regression techniques and time series forecasting because I want to develop my Data Scientist career in solving heavy and complex industrial problems that Data Science could give solutions to. Self-learning enthusiast.

WORK EXPERIENCE

The Insight, Florianopolis, SC, Brazil. Data Scientist — *January 2021 - Present*

Petrobras Startups Challenges — *July 2021 - Present*
- With Time Series Forecasting techniques I predicted Brazil's price and cost of electric energy with 15% of accuracy.
- Working with economics and financial data, I predicted Brazil's electrical energy demand with 5% of accuracy.
- Using several climatological factors, I could correct the most common forecasting climatic models to predict the amount of rain precipitation on Brasil's electrical system.
- I developed a method for transforming georeferenced data with different grade resolutions using RNN and vector techniques, that improve the reading speed of climatological models by 90%.
- With different ML frameworks, I could predict interday's Petrobras natural gas demand with 10% of accuracy.
- Main leader for the IA module in this project.

Predict maintenance time for conveyors belts — *January 2021 - July 2021*
- Using ML models and mathematical techniques, such as Fourier Transform, I predicted the preventive and corrective maintenance for conveyors belts on a big mining company, increasing their operative time by 35%.

Tech Stack: Python, Scikit-Learn, TensorFlow, Xarray, Pandas, Matplotlib, Azure, Docker, Jira, Confluence, Bitbucket.

MBE & Internet Medico Ltda. Bogotá, Colombia

Machine Learning Engineer — *June 2020 - January 2021*
- Using historical healthcare data, I cloud predict which people with specific previous diseases could develop a more critical COVID-19 condition, for the insurance company pays special attention to that people.

Tech Stack: Oracle SQL, Python, Scikit-Learn, Pytorch, Pandas, Seaborn, Github.

Equivida Salud Ocupacional. Villavicencio, Meta, Colombia

Web Applications Developer — *April 2020 - January 2021*
- I developed and deployed a web application to collect and store COVID-19 test results on GCP, that allows 24/7 access to the form to put the results of the tests and build later statistical analysis with the data.

Tech Stack: Python, Flask, GCP, Cloud Firestore, AppEngine, HTML5, CSS3, JS, Github.

Travel Agency Experiencias-VITALUD SAS. Bogotá, Colombia.

IT Commercial Advisor — *December 2017 - March 2020*
- Based on the NLP service from IBM Cloud "Watson", I built a service to give answers to the most frequent customer questions, increasing the response time of the sales team by 40%.

Tech Stack: NLP, Python, IBM Cloud, GitLab.

SKILLS

Programming Languages: Advanced: **Python**; Intermediate: **SQL, HTML5, CSS3**; Basic: **JS, R**.
Frameworks and Tools: Advanced: **Pandas, Scikit-Learn, GIT, Excel**; Intermediate: **Docker, MLOps, Deep Learning**.
Cloud: Advanced: **GCP, IBM Cloud**; Intermediate: **Azure**; Basic: **AWS**.
Languages: Fluent: English and Portuguese; Native: Spanish.

EDUCATION

Politécnico Grancolombiano – Bogotá, Colombia. *Financial Management Specialist, September 2007*
Universidad de Los Andes – Bogotá, Colombia. *Bachelor of Chemical Engineering, October 2006*

CERTIFICATIONS

Artificial Intelligence "School" – PLATZI, Online Courses for IT professionals. 2020.