## María Aquilera García

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Big data, machine learning, coding, and data science passionate. Eager to learn and develop my professional career around these fields, and create value by leveraging by strengths curiosity, people, numbers, and languages. Inspired by highly demanding challenges and learning opportunities. Upbringing spent in a wide range of countries fostered a great sense of multiculturalism and respective linguistic techniques, allowing me to relate and feel comfortable with every kind of person.

#### Professional Experience

Software Consultant Madrid, Spain

**BMC Software** 

Feb. 2023 - Present Training on IBM Mainframe with RSM. Courses include IBM z/Systems Environment | z/OS Concepts & Facilities | RACF | TSO/ISPF | JCL | Unix System Services | z/OS Data Storage Essentials | Parallel Sysplex | CICS Transaction Server

EY Audit Intern Analyst EY (Ernst & Young)

Madrid, Spain

Jan. 2020 - Apr. 2020

Assigned to two clients: SAETA from Renewable Energy sector subject to PCAOB regulation and listed on the NASDAQ, and a less demanding client that resulted in a smaller team with more responsibility.

Prepared, analyzed and validated annual reports to develop comprehensive audit working papers and communicated with team members around the world. Developed advanced Microsoft Excel attention-to-detail skills.

## @ Tech & Finance Intern

Vigo, Spain

Compañía Española de Algas Marinas S.A (CEAMSA)

Jun. 2019 - Jul. 2019

Helped the Finance department with banking activity reconciliation, month-end close, and journal entries. As a tech assistant, received training from the IT department on SAP Business One to give support and resolve technical issues in all other departments.

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Santander Bank Polska

Warsaw. Poland Jun. 2018 - Jul. 2018

S&P Capital IQ, Bloomberg and Merger Market were used to conduct and monitor corporate and industry-specific analysis, in order to create reports and presentations for superiors to use in negotiation meetings.

#### Education

### Master in Business Analytics and Big Data (specialization in Applied Artificial Intelligence)

IE School of Human Sciences & Technology

Madrid, Spain Sept. 2021 -Jul. 2022

Relevant courses: Python | Machine Learning | Deep Learning | Reinforcement Learning | NLP | Time Series Forecasting | Social Network Analysis | SQL

#### Bachelor's in business administration - BBA

Madrid, Spain

Carlos III University of Madrid

Sept. 2016 -Jun. 2021

Honours in Financial Economics | Excellence in Game Theory, Econometrics, Statistics, Information Skills

## **Technical Skills**

- General Knowledge: Statistics | Econometrics | Machine learning | Deep Learning | Reinforcement Learning | NLP | MSOffice | Advanced Excel | Git | GitHub
- Programming Languages: SQL | R | Spark | Scala | Python (Pandas, Matplotlib, Seaborn, Scikit-learn, NumPy, Keras, TensorFlow)
- RDBMS: IBM DB2 | MySQL | Spark SQL
- NoSOL: MongoDB
- Analytics: Power BI | Google Data Studio | Google Analytics
- Big Data Frameworks: Hadoop HDFS | Apache Spark
- Streaming & Messaging: Spark Streaming | Apache Kafka | Apache NiFi
- IBM Mainframe: z/OS | JCL | REXX | USS | Parallel Sysplex

### **Major Projects**

Corporate Data Breaches and Narrative Disclosures (Undergraduate Thesis Project & 2019, 2020 INNCYBER Innovation Award - Grade 9.7/10)

The goal was to examine how data breaches affect corporate communication of public U.S. data breached firms by examining whether managers engage in managerial discretionary disclosure behavior in the 10-K annual reports or whether they provide incrementally useful information aimed at enhancing decision making by filing infrastructure gaps.

Skills: R (Tidy verse, ggplot, lubridate, PostgreSQL) | Fuzzy Matching (Fuzzy-Lookup Add-in) | Econometrics & Statistics (DID, Logit, Fixed Effects)

# Raw Material Forecasting of Industrias Duero (Master Thesis Project)

With five classmates, optimized the supply chain cycle to improve the company's inventory turnover by predicting the demand and volume of raw material. Implemented predictive modelling strategies using machine learning, data science and time series forecasting techniques (e.g., ARIMA, ARMA, SARIMA, GARCH) and big data analysis (>1.5 M data points).

Skills: Python | Facebook Prophet | Time Series Analysis & Forecasting | XGboost | Catboost | Microsoft Power BI

Forest Cover Type Prediction (Machine Learning II Project, Grade: 10/10)

Goal was to attain the highest accuracy score compared to the other teams. Analyzed, cleaned, pre-processing and feature engineering for the creation of machine learning models.

Skills: Python | Matplotlib | Seaborn | Plotly | Scikit- learn Pipelines | Grid search | Hyperparameter Configuration | Data Visualization

Bike Sharing Analysis (Python II Group Project, Grade: 10/10)

Goal was to predict the total number of Washington D.C bicycle users on an hourly basis.

Skills: Exploratory Data Analysis | Data Cleaning & Analysis | Time-Based Cross Validation | Python

## Analysis of Formula 1 User Interactions on Twitter (Modern Data Architectures Project)

Using five datasets containing circuit information, and ingesting tweets with the hashtag "#F1" we analyzed the ways in which teams, cities and sponsors can gain returns on their investments.

Skills: Apache Nifi | HDFS | Apache Spark | PySpark

# Instagram Graph Analysis and Community Detection Algorithms (Social Network Analysis Project)

Using GraphX and graph algorithms to analyze and explore different patterns and communities.

Skills: Python | GraphX | Community Detection Algorithms

## Elemetrica LLC Text Classification Model (Natural Language Processing Project)

As the company's data was structured differently in each POS, developed a text classification model to unify each product into a unique code.

Skills: TF-IDF| Stemming | NLP | Scikit-learn| NLTK | Pandas | Class Imbalance

Talent Highway 2022 (Mercedes-Benz Hackathon)

The goal was to develop a data-driven product that provides insights and analyses market trends of the used car market in order to identify potential opportunities in this niche. Skills: Python | Merging | Divide & Conquer Problem Solving | Machine Learning | Data Cleaning | Teamwork

## Innomakers4Health 2022 (Pfizer Hackathon)

My team focused on improving the communication between the healthcare system and the patient with depression and anxiety by developing an app that monitors the treatment in a personalized manner.

Skills: Python | Teamwork | Canvas | Design

English (Native) | Spanish (Native) | French (Conversational) | Portuguese (Basic)

## **Volunteering Experience**

- Took care of orphan children living in poor conditions in the village of Holeta and helped them learn some essential math and English skills (Cooperating Volunteers Ethiopia
- In charge of kids in the worst conditions whose parents were sick (Hospital Municipal Miguel Couto -Brazil, May 2016)
- Participated in a cataract surgery expedition. (Fundación Barraquer Dominican Republic, Aug. 2015)

# Other Interesting Information