Mario **Burbano**

CLOUD DATA INGENIEUR ET ANALYSTE · PHD EN CHIMIE PAR MODÉLISATION NUMÉRIQUE

91 rue du Colonel Fabien, 92160 Antony, France

+ 33 6 43 27 79 22 | burbanom@tcd.ie | burbanom | burbanom | Mario Burbano

Omega SA   *28 septembre 2021*

2502 BIEL/BIENNE
SWITZERLAND

Watch Data Engineer

Madame, Monsieur

Après avoir surmonté les difficultés liées à l'arrive des mechanismes quartz, l'industrie horologère Suisse est devenu plus forte qu'avant et avec Omega SA parmi ses porte-drapeau grace à la confiance que vos clients accordent à la qualité de vos produits. Néamoins, nous vivions dans une époque de changement exceptionel et il est primordiale de garder une longueur d'avance sur la concurrence. L'arrivé des infrastructures sophistiqués pour le traitement de données a ouvert des nouveaux moyens aux entreprises pour améliorer leurs procès et mieux maîtriser leurs opérations. After having surmounted the difficulties due to the advent of quartz timepieces, the Swiss watchmaking industry came out stronger than before and with Omega SA as one of its standardbearers due to the confidence that customers have in the quality of its products. Nevertheless, we live in times of rapid change and keeping an edge over the competition is more important than ever. The advent of sofisticated data infrastructures provides companies with a means to improve processes and get a better handle of operations.

Ma formation est dans le domaine des sciences physiques et l'exploitation des grosses volumétries de données a été une partie intégrale de ma vie professionnelle. Pendant ma carrière en tant que scientifique j'ai utilisé des simulations numériques pour clarifier et prédire les propriétés de matériaux pour le stockage et la génération d'énergie. Dans ce domaine, la cible principale est de publier ses résultats dans des revues scientifiques ou bien dans des conférences internationales. Ceci est un effort souvent d'équipes pluridisciplinaires. Ma liste d'articles peut être trouvée dans le lien dessus. My educational background is in the physical sciences and handling large amounts of data has been part of my professional experience for a long time. Throughout my career as a research scientist I relied on the power of computers and the data that they generate in order to elucidate and predict the properties of materials for energy storage and generation. The crown achievement of this investigative process, was the communication of the results with the research community by way of scientific articles often written in collaboration with different teams or in international conferences where I presented my results. My published articles can be found on my google scholar page (link above).

Since leaving the world of academic research I have been able to adapt my skills to the fields of Data Engineering and Data Analysis. I have also extensive experience with Python, which I have used in several contexts, for example as a tool for analyzing data with `pandas`/`scikit-learn`, as a tool for moving/extracting data with `sqlalchemy` and as a means to visualize data with `matplotlib`/`seaborn`/`Plotly`, among others. Through practice, I have gained significant knowledge of SQL and tools like Dataiku DSS, for which I am an instructor.

Among my most notable professional experiences I count the time that I spend at Essilor. My job consisted of creating ETLs written in python which handled data from the company's fabrication machines and optical calculators. These data were then made available through the Amazon cloud and analyzed using Dataiku DSS. My current project at L'Oréal has brought me to work on the construction of a data infrastructure to handle the needs of the R&D teams, thus it has been paramount to construct datawarehouses and datamarts to give users access to up to data information on things like worldwide products, ingredients, regulations, etc. My added value in these projects appart from my daily activities has been twofold : by applying my data analysis skills I have been able to provide decision makers with valuable information with regard to the tasks that need to be prioritized while my capacity to abstract concepts has allowed me to automate time-consuming tasks.

There are many more aspects to my diverse career and life experience that I have not shared here with you, but that I can no doubt elaborate on should you do decide to contact me. Thank you for your time, I look forward to hearing from you.

Best Regards,

Mario Burbano