

## COMPANY

September 24, 2021

CITY  
SWITZERLAND

### Cloud Data Engineer and Analyst

Dear Sir or Madam

My educational background is in the physical sciences. 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 domain of high performance computing, where I gained the bulk of my professional experience, leverages the power computer clusters connected via high speed networks in order to perform simulations of large and/or complex systems. My role as a researcher consisted of implementing algorithms to model battery or solar cell materials, then carrying out simulations from which data could be gathered, parsed and ultimately interpreted within the context of their physical/chemical meaning. The final aspect, and 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. My published articles can be found on my google scholar page.

Since leaving the world of academic research I have been able to adapt my skills to Cloud Computing environments like Amazon Web Services and Google Cloud Platform. I have also extensive experience with Python, which I have used in several contexts, for example as a tool for analyzing data with **pandas** and **scikit-learn**, as well as, using it as a tool for moving data with **sqlalchemy** and exposing data by means of Flask APIs. Along the way I have gained significant knowledge of SQL and tools like Dataiku DSS, for which I am an instructor.

I am a highly motivated person who is able to adapt to different environments. The projects that I have worked on outside fundamental research have touched upon a theme that is common for many companies nowadays, namely the migration of their existing on-premise infrastructures towards the cloud. My added value in this context 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.

Leveraging the incredible value that is present within data will be vital for businesses in the coming years as it will allow them to predict market trends in order to make better-informed decisions and thus gain a competitive edge over their rivals. These are indeed exciting times for those of us who are working in this field due to the fast-paced evolution that we are now witnessing.

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

Best Regards,

**Mario Burbano**



*Attached: Curriculum Vitae*