

Evelyn Coronel

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Summary

Physicist & Machine Learning Developer:

I like implementing smart solutions to every task I encounter. I have experience in Machine Learning for more than 2 years: industry and scientific research. My physicist background helps me to understand mathematics behind algorithms and data analysis, and my experience provides me with strong programming skills for Data Science and Artificial Intelligence.

Experience

Deutsches Elektronen-Synchrotron | Data Scientist Hamburg, Germany | September 2021 - March 2022

I learned about the state-of-the-art Deep Graphs Convolutional Neural Networks papers in physics and explored and experimented with repositories on the topic using PyTorch Geometrical. I designed and developed a DGNN VAE modeling energy readings inside the ATLAS Experiment.

Advisor: Prof. Dr Judith Katzy

Humboldt-Universität zu Berlin | Student Tutor Hamburg, Germany | October 2021 - February 2022

Tutorial classes for *Einführung in Maschinelles Lernen für Physiker* for the winter term 2021-2022. I helped the students in getting a detailed introduction to Tensorflow and classical Machine Learning.

Cortical.com, Inc. | Machine Learning Consultant San Francisco, CA | December 2020 - July 2021

Remote Work. Focus on Reinforcement Learning & Bayesian Learning. I developed algorithms and helped to debug existing codes with C++ and CUDA.

The Pierre Auger Observatory | Student Intern Bariloche, Argentina | August 2019 - February 2021

During my Bachelor's and Master's degrees, I performed data analysis on measurements of ultra high energy cosmic rays, finding anomalies in a large dataset suggesting a possible dipole in an interesting energy range, using ROOT, C++ and Python. Advisor: Prof. Dr Silvia Mollerach

Cortical.com, Inc. | Remote Internship San Francisco, CA | April 2020 - June 2020

I learned to approach different problems with a more pragmatic point of view, beyond the mathematical models with unsupervised and reinforcement learning techniques using C++.

Laboratory for Photonics & Optoelectronics | Intern Bariloche, Argentina | January 2019 - June 2019

I worked with the group that performed the first measurements of the Bose-Einstein condensation of polaritons in the Bariloche Atomic Center programming data analysis software with Numpy and Scipy. I was acknowledged for my work in the following paper:

<https://doi.org/10.1038/s41467-020-18358-z>. Advisor: Prof. Dr Alejandro Fainstein.

Education

Instituto Balseiro | Master's degree in Physics Bariloche, Argentina | Graduated on February 2021

Dissertation: *Analysis of the Arrival directions of Ultra-High Energy cosmic rays detected by The Pierre Auger Observatory*. Scholarship from the Argentinean Atomic Commission. 7.16/10 GPA.

Skills

Proficient	Python, C++, Linux Shell Scripting (bash & awk), Tensorflow.
Familiar	ROOT, CUDA, PyTorch, Scikit-Learn, Pandas, PostgreSQL.
Experienced	LaTeX, Gnuplot, Machine Learning Algorithms, Data Analysis, GNU/Linux, Numpy Matplotlib, Large Datasets, Deep Learning, Git.