

ARTURO SIRVENT FRESNEDA

Physicist and Data Scientist

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ArturoSirvent



EXPERIENCE

Advanced Technician in AI Research

Polytechnic Valencia University (UPV)

April 2023 – Ongoing (part-time) Valencia (Spain)

- Research on Finite Element Method acceleration using PINNs and Physics-based Deep Learning approaches.

Pytorch Lightning AI HuggingFace API Linux - Bash SSH

Deep Learning TensorFlow MLFlow - Experiment Tracking

Slack Deep Learning Python Machine Learning

Data Scientist | Programmer

Idrica

Sept. 2022 – Ongoing Valencia (Spain)

- Working as Data Scientist at the Valencia SmartCity project for the Valencia Council.

MLOps Machine Learning Databases - SQL - Postgres ETL Tools

Business Intelligence CD/CI Agile - Scrum Linux - Bash Scripting

Docker API REST SSH HTML - CSS - JavaScript Python

Collaboration Grant

Image & Signal Processing group (University of Valencia)

Oct. 2021 – Jul. 2022 Valencia (Spain)

- Development of Deep Learning techniques for information extraction from satellite (Sentinel - ESA Copernicus program) earth images.

Pytorch Python Automation Computer Vision GIS

Cloud Segmentation Models TensorFlow SSH Python

TensorBoard - Experiment Tracking

Summer Internship at University of Alicante

Quantum Chemistry group

(University Materials Institute of Alicante - IUMA)

Jul. 2021 – Aug. 2022 Alicante (Spain)

- The goal was to learn about quantum chemistry calculation programs and their implementation in the lab's computers.

ORCA Bash Automation DSH-SCP-Cluster SSH Linux

SAMBA Molden Avogadro

Private teacher (mathematics, physics, chemistry)

Freelance

Jan. 2017 – Jul. 2021 Granada (Spain)

OFICIAL EDUCATION

M.Sc. in Data Science

University of Valencia (UV)

Sept. 2021 – April 2023

- My Master's Thesis (TFM) was about the implementation of Transformers architecture for the problem of non-supervised anomaly detection on multivariate time series (sequential data).

B.S. in Physics

University of Granada (UGR)

Sept. 2016 – June 2021

- Erasmus+ at the University of Wuppertal (Germany), with many elective courses on computational science and data analysis.
- My Bachelor's Degree Final Project (TFG) entailed developing an intelligent classification system (using ConvNets) for the Cherenkov Telescope Array (CTA).

COURSES

Deep Learning for Earth Science

IPL group at University of Valencia (UV)

2022

Introduction to Data Science

Ubiquum (Code Academy)

2021

Advance programming with C++

University of Granada (UGR)

2018

Scientific computing with Python

University of Granada (UGR)

2017

LANGUAGES

Spanish (Native) ● ● ● ● ●

Valencian ● ● ● ● ●

English ● ● ● ● ●

German ● ● ● ● ●