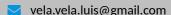
LUIS VELA VELA PHD

Accomplished Computational Physicist and NWP Software Engineer with expertise in High-Performance Computing, Scalable Al. and meteorological data analysis, Combines an entrepreneurial approach with a commitment to developing customer-centric solutions, aiming to contribute significantly in technology-driven settings.

CONTACT



+352 661 678965

Luxembourg, Luxembourg

in Luis Vela Vela

SKILLS

Programming Languages

Python FORTRAN Bash

Software & Tools

Version Control git, github, BitBucket **Num. Weather Prediction** UFS, WRF **Data Science** (numpy, scipy, pandas) MI & DI

(scikit-learn, OpenCV, TF2)

GPU acceleration

(RAPIDS)

Distributed Computing

(DASK, Horovod)

Visualisation (matplotlib, gnuplot, Vislt, ParaView, ncview)

MS Office



CERTIFICATES

Udacity Computer Vision Nanodegree NVIDIA TensorRT NVIDIA RAPIDS DeepLearning.Al Deep Learning DeepLearning.AI TensorFlow **Stanford Machine Learning**

S WORK HISTORY

Mov22' - Present

NWP - Software Engineer

Global collaboration in NWP for space-enabled products. Lead data-pipeline development, optimize HPC processing, and innovate leveraging Spire's assets and expertise.

Feb21' - Nov22'

♀ LuxProvide, Luxembourg

Spire Global, Luxembourg

Sr. Solutions Engineer

Engaged with customers to assess their needs, leveraging technical expertise to design HPC solutions. Established and nurtured customer relationships throughout the entire sales cycle.

Amazon, Luxembourg

Research Scientist

Leveraged diverse data sources, conducted quantitative and qualitative research, and applied statistics and ML to provide actionable insights with a direct impact on Amazon's workforce

♀ S2DS (AstraZeneca), London

Data-Science Fellow

Automated exploration of the Gene Expression Omnibus (GEO) database, predicted research topics through time-series analysis, and delivered a graph-based drug recommendation engine.

EDUCATION

Sep13'- Feb19'

PhD. in Computational Physics **Q** UC3M, Madrid | UGent, Ghent Smoothed Particle Hydrodynamics and its application to fusion-relevant MHD problems.

Sep11'- Jul13'

Msc. in Plasma Physics **Q** UC3M, Madrid | UGent, Ghent Statistical Properties of Turbulent Dynamics in Linear Devices

Sep07'- Jul10'

Bsc. in Physics **♦** Charles University, Prague

PIC simulation of the segmented cylindrical probe

ACHIEVEMENTS, HONOURS AND AWARDS

- Outstanding Colombian Abroad | Award by the Colombian Government
- Summa-Cum-Laude | PhD Thesis dissertation
- ▼ Greatest Distinction | 2013 Erasmus Mundus Master
- ▼ UNESCO Fellowship | Bachelor Studies Scholarship

PUBLICATIONS

- Magneto-hydrodynamical nonlinear simulations of magnetically confined plasmas using smooth particle hydrodynamics (SPH)
- A positioning algorithm for SPH in smoothly curved geometries
- ALARIC: An algorithm for constructing arbitrarily complex initial density distributions with low particle noise for SPH/SPMHD applications

GENERAL SKILLS

Physics High Performance Computing Numerical Weather Prediction Computational Fluid Dynamics Nuclear Fusion Sacalable AI