

LUIS VELA VELA PHD

Sr. AI Scientist and Computational Physicist with proven experience in AI/HPC solution architectures, client engagement, and implementing AI/ML solutions in production environments. Passionate about connecting technical complexity with business value, with a track record of managing client relationships throughout implementation and deployment cycles.



CONTACT

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- +352 661 678965
- Luxembourg, Luxembourg
- OnlineResume
- @luiservela
- Luis Vela Vela

CORE COMPETENCIES

Client-Facing Skills

| | |
|-----------------------------|--|
| Technical Sales & Pre-sales | |
| Client Relationship Mngmt | |
| Stakeholder Mngmt | |
| Solution Architecture | |

Programming & Development

| | |
|---------|--|
| Python | |
| FORTRAN | |
| Bash | |

AI/ML & Cloud Technologies

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|--|--|
| ML/DL Frameworks (TensorFlow, PyTorch) | |
| AI-Weather Models (Aurora, AIFS, FourCastNet) | |
| Cloud Platforms (AWS-cli) | |
| DataScience Stack (NumPy, Pandas, Scikit-learn) | |
| Distributed Computing (CuPy, CuDF, CuML, Dask) | |
| HPC & Optimization (JAX, Numba, RAPIDS) | |

Development & Integration

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|---------------------------------|--|
| CI/CD (Git, GitHub, GitLab) | |
| DevOps Tools (Conda, Docker) | |

Languages

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|------------------|--|
| Spanish, English | |
| French, Serbian | |
| Czech | |

KEY ATTRIBUTES

- Customer success focused
- Technical discovery expertise
- Cross-functional collaboration
- Business value orientation

PROFESSIONAL EXPERIENCE

- Nov22' - Present **Sr. AI Weather Scientist**
Spire Global, Luxembourg
Led cross-functional team developing ML infrastructure for weather forecasting. Presented technical solutions to stakeholders ensuring successful project delivery.
- Feb21' - Nov22' **Sr. Solutions Engineer**
LuxProvide, Luxembourg
Conducted technical discovery calls and designed custom HPC/AI solutions during sales cycles. Managed client relationships from assessment through deployment.
- Oct19' - Jan21' **Research Scientist**
Amazon, Luxembourg
Applied advanced ML/statistics to provide actionable insights with direct business impact.

CLIENT ENGAGEMENT & BUSINESS IMPACT

- Managed client relationships from discovery to solution and deployment
- Led pre-sales presentations leading to HPC solutions
- Architected production ready infrastructure for AI weather forecasting
- Deployed two AI-based products with measurable business impact

EDUCATION

- Sep13' - Feb19' **PhD. in Computational Physics**
UC3M, Madrid | UGent, Ghent
Specialized in computational methods and their application to complex physical systems. Developed advanced algorithms for high-performance computing environments.
- Sep11' - Jul13' **MSc. in Plasma Physics**
UC3M, Madrid | UGent, Ghent
Statistical analysis and modeling of complex dynamic systems.
- Sep07' - Jul10' **BSc. in Physics**
Charles University, Prague
Foundation in computational physics and simulation methods.

ACHIEVEMENTS & RECOGNITION

- 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

SELECTED 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