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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- • Luxembourg, Luxembourg
- ⌂ OnlineResume
- ○ @luiservela
- in 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

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

CI/CD (Git, GitHub, GitLab)	●●●●●
DevOps Tools (Conda, Docker)	●●●●○

Languages

Spanish, English	●●●●●
French, Serbian	●●●●●
Czech	●●●●○

KEY ATTRIBUTES

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

⚙ PROFESSIONAL EXPERIENCE

Nov22' - Present
● Spire Global, Luxembourg

Sr. AI Weather Scientist
Led cross-functional team developing ML infrastructure for weather forecasting. Presented technical solutions to stakeholders ensuring successful project delivery.

Feb21' - Nov22'
● LuxProvide, Luxembourg

Sr. Solutions Engineer
Conducted technical discovery calls and designed custom HPC/AI solutions during sales cycles. Managed client relationships from assessment through deployment.

Oct19' - Jan21'
● Amazon, Luxembourg

Research Scientist
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'
● UC3M, Madrid | UGent, Ghent

PhD. in Computational Physics
Specialized in computational methods and their application to complex physical systems. Developed advanced algorithms for high-performance computing environments.

Sep11'- Jul13'
● UC3M, Madrid | UGent, Ghent

MSc. in Plasma Physics
Statistical analysis and modeling of complex dynamic systems.

Sep07'- Jul10'
● Charles University, Prague

BSc. in Physics
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