CARLOS D. MORA MORENO

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Delivering new energy technologies in benefit of the society is my talent.

Passionate about the energy transition, with experience in innovative energy carriers and converters across various scales, from research devices to household appliances. Focused on the human aspect in technical projects, with a strong interest in European policy, regulations, and standardization. Seeking to further enhance skills in project management, business development, and policy dynamics.

Expertise Values Mathematical Modeling and Data Science, Energy Technology, Project and Stakeholder Management

Values Competencies Curiosity, Innovation, Pursue of Excellence, Responsibility, Confidence, Team Spirit Analytical Mind, Attention to Detail, Creativity, Leadership, Multi-level Communication

EXPERIENCE

March 2025 -Present

Strategic Portfolio Specialist BDR Thermea & Remeha

- Main responsibility: Analysis of product portfolio performance.
- Skills / duties:
 - Identify underperforming or non-strategic products for discontinuation
 - Engage with local operating countries to coordinate product cessation processes
 - o Providing updates and impact analysis to the management board
 - o Cross-functional collaboration to ensure smooth phase-outs
 - Ensuring that the streamlined portfolio contributes to higher efficiency and margin growth

2023 - 2025 Data Scientist BDR Thermea & Remeha

- Main responsibility: R&D of Energy Management solutions.
- Skills / duties:
 - Data analysis and visualization
 - Project planning and execution
 - o Collaboration with academia
 - Policy development
 - Product strategy development
 - Explore the feasibility of use cases
 - Field trial launching
 - $\circ~$ Design and commissioning of an Integrated Monitoring System

2022 - 2023 Simulation and Modeling Engineer BDR Thermea & Remeha

- **Main responsibility:** Development of numerical models of hydronic components for automated testing.
- Skills / duties:
 - Agile / Scrum methodologies
 - Project planning and execution
 - Stakeholder Management
 - Product strategy development
 - Quality control of software products
 - Automated testing
 - Mathematical model validation

2017 - 2022 Graduate Research Fellow at Eindhoven University of Technology

- Subject of the Project: Development of advanced predictive models and algorithms aimed at mitigating turbulent heat transport in fusion plasma experiments
- Skills acquired:
 - High-Performance Computing Large-scale simulations and optimization
 - Data Engineering & Visualization Data pipelines and impactful visualizations
 - o Predictive Modeling Accurate and reliable model development
 - o *Project Management* Coordinated international research collaborations
 - o Scientific Training Research, integrity, writing, and communication
 - o Mentorship Guided M.Sc. students through successful final projects

2017 Research Associate at UK Atomic Energy Authority

- **Main project:** Develop experimental scenarios to test the capabilities of a new magnetic coil configuration of a fusion plasma reactor
- Skills / duties:
 - Solve 2-D magnetic equilibrium equations using a dedicated MATLAB package
 - Calculate magnetic coil interaction matrices
 - Devise the transitions between magnetic equilibria
 - o Determine the viability of experimental scenarios
- Experiments ran successfully during device commissioning

2015 - 2016 Diagnostics Engineer at TAE technologies and spin-off Plasmatech

- **Main project:** Characterization of impurity losses in a linear plasma device using Doppler spectroscopy
- Skills / duties:
 - Hands-on maintenance of experimental setup
 - Development of data acquisition routines
 - Support to lead scientists during experimental campaigns
 - Involvement in discussion of physical results
 - Experience in a multi-physics, engineering and industrial environment
- Bachelor's thesis written on this topic

EDUCATION

2016 - 2017 Master of Science (with distinction) in Fusion Energy

University of York · UK Atomic Energy Authority

- Specialization program to address the current energy demand with an innovative solution: Nuclear Fusion
- Focus on theoretical plasma physics and HPC computing
- One-year program with focus on research experience (at UKAEA)
- Awarded a scholarship from the Mexican Science and Technology Council

2014 International exchange experience

Universitat Autònoma de Barcelona

- Courses followed:
 - Particle Physics, Discrete Mathematics, Business Organization and Management, Entrepreneurship

2009 - 2012 **Bachelor of Engineering Physics**

Universidad Autónoma Metropolitana - Azcapotzalco

- Hands-on experience at the astrophysical plasma laboratory
- International exchange scholarship
- End-project scholarship

SKILLS

Languages Spanish ★★★★

Computer

- Vim · Preferred editor
- LaTeX · Publication-quality documents
- Git · For version control of virtually everything
- html, CSS · Used for this curriculum vitae (with markdown → Pandoc)
- Microsoft 365 · Where useful

Team Collaboration

- Jira · Project tracking software
- Miro · Creative collaborative workspaces
- Azure DevOps · Software development
- Azure ML · Al development environment

Programming

- **Python** · Numpy, scipy, pandas, matplotlib, cython
- Jupyter · Lab and notebooks. Used for daily data analysis
- Mathematica · Used for symbolic computing

PERSONAL

Nationality Dutch, Mexican

Date of birth 20 September 1990

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