MIGUEL LÓPEZ CORDERO

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LinkedIn Profile

PROFESSIONAL SUMMARY

Aerospace Engineer specializing in the intersection of Systems Engineering (MBSE) and Software Development. Passionate about optimizing the lifecycle of complex products through advanced methodologies like Arcadia and Digital Twins. Currently pursuing a Double Master's Degree (Space Operations and Space Systems). Hands-on experience in critical systems development (C++, Embedded) and requirements traceability for Aerospace and Defense sectors. Bridging the gap between architectural design and software implementation using Python automation and simulation.

WORK EXPERIENCE

Tecnobit S.L.U. (Grupo Oesía)   Seville, Spain
Systems Software Engineer Intern (C++/Embedded)   *November 2025 – Present*

- Collaborating directly in the software lifecycle for aerospace critical systems using C++.
- Ensuring adherence to rigorous industry standards (DO-178C) for safety-critical software.
- Implementing CI/CD pipelines using Jenkins and managing configuration with Git/GitLab.
- Utilizing IBM DOORS and Enterprise Architect (EA) for software design and requirements traceability.
- Working within Agile methodologies using JIRA for task tracking and code correction.

Accenture S.L.U.   Seville, Spain
System Architecture Engineer Intern (MBSE)   *April 2025 – July 2025*

- Applied Arcadia methodology and Capella to define and analyze complex naval systems.
- Developed reusable system model libraries, enhancing design efficiency and standardization.
- Analyzed the S-80 Fly-By-Wire system to validate MBSE benefits in real-world scenarios.
- Performed requirements verification using 1D modeling with Siemens Amesim.
- Utilized Teamcenter PLM for collaborative engineering data management.

KEY PROJECTS

Universidad de Sevilla   Seville, Spain
Automated Digital Thread (ATA 21) - Final Degree Project   *2025 High Honors Awarded*

- Designed the complete architecture (Operational to Physical layers) using Capella and ARCADIA.
- Developed scripts using Python4Capella to bridge the Capella model with MATLAB/Simulink, automating data flow for simulation.
- Implemented a 1D ECS model for CS-25 certification verification and a parametric FTA (Fault Tree Analysis) for RAMS/Reliability evaluation.
- Processed EASA CS-25 regulations into formal requirements using ReqIF and MATLAB Requirement Toolbox.

EDUCATION

Universidad de Sevilla   Seville, Spain
Master of Science in Space Operations and Systems   *October 2025 – Present*

- Focus: Space Systems Engineering, On-Board Software, Mission Operations.

Universidad Europea Remote
Master of Science in Space Systems *October 2025 – Present*
- Focus: Satellite Systems, ECSS Standards, Systems Integration.

Universidad de Sevilla Seville, Spain
Bachelor of Science in Aerospace Engineering *September 2021 – September 2025*
- Grade: High Honors in Thesis.
- International Experience (Erasmus+): Università di Pisa, Italy (September 2023 – June 2024). Developed adaptability and B2 Italian proficiency.

SKILLS

- **Systems Engineering and MBSE:** Capella (Expert), Arcadia, Enterprise Architect, Cameo, IBM DOORS, Siemens Teamcenter/Amesim, ReqIF.
- **Software Development:** C++ (Embedded/OOP), Python (Scripting, Python4Capella, Automation), MATLAB/Simulink.
- **Tools and DevOps:** Git, GitLab, Jenkins (CI/CD), JIRA, Linux environments.
- **Standards:** DO-178C (Software), CS-25 (Certification), ECSS (Space), RAMS Analysis.
- **Languages:** English (C1 - Advanced Certified), French (B2 - High Proficiency), Italian (B2 - Certified), Spanish (Native).