



Sergi Lopez Jimenez

Date of birth: 12/03/1994 | **Nationality:** Spanish | **Gender:** Male | **Phone number:**

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ABOUT ME

A highly dedicated and hardworking person, determined and reliable, resilient to failure and ambitious. With advanced programming skills, a passion for Space Engineering and code, keen on Spacecraft Operations, orbital mechanics and flight dynamics.

WORK EXPERIENCE

01/11/2023 – CURRENT Friedrichshafen, Germany

FUNCTIONAL VALIDATION ARCHITECT AIRBUS DEFENCE & SPACE

Role: of the FV architect is to define, coordinate, oversee, prepare and plan all activities related to the Functional Validation of the Spacecraft and Systems design. The aim is to verify and validate the design, so that the end product does what is intended to do and complies with the defined customer requirements.

Skills: Systems engineering, Project Management, Validation and Verification for embedded SW, HW and HW/SW integration.

01/08/2021 – 31/10/2023 Immenstad am Bodensee, Germany

SPACECRAFT SIMULATION & MODELLING ENGINEER AIRBUS DEFENCE & SPACE

Role: Spacecraft Simulation and Modelling Engineering. The aim of this position is to provide the infrastructure for on-board SW testing and technical SW product development for spacecraft platforms, payloads and equipment.

Skills: Software development in simulation & modelling. Object-oriented analysis & design with UML. Development of desktop applications/tools using a client/server architecture. Knowledge of machine-to-machine communication protocols. Good knowledge of development domains, frameworks and utilities (DevOps). Knowledge of spacecraft avionics systems. Excellent knowledge of C++ & Java. Experience with Unix/Linux and Windows operating systems. Experience in SpaceWire, MilSTD 1553, ECSS PUS, CAN data protocols

01/04/2020 – 30/07/2021 Immenstad am Bodensee, Germany

FUNCTIONAL AIT ENGINEER AIRBUS DEFENCE & SPACE

Role: Functional Assembly Integration Test Engineer for the BIOMASS mission. Development of validation and verification functional tests for the main Instrument of the BIOMASS mission.

Skills and experience: knowledge in CCSDS PUS standards, Central Checkout System and Special Checkout Equipment operation, systems engineering focused on satellite operations and software architecture. Advanced knowledge in C# and Object Oriented Programming.

01/11/2018 – 31/03/2020 Tres Cantos, Spain

FLIGHT DYNAMICS ENGINEER - SPACE SURVEILLANCE AND TRACKING GMV AEROSPACE & DEFENCE S.A.U.

Role: Engineering and mission analysis for characterization of the capabilities of different topologies of SST systems to detect and maintain space objects in a catalogue. Improvement of SST product provision (catalogue build-up and maintenance, collision avoidance) through statistical analysis.

Skills and experience: proficient knowledge in Orbit Determination, Orbital Mechanics and Astrodynamics. Advanced programming skills in: Python (extended experience with Pandas, Matplotlib, SciPy and NumPy), FORTRAN and Bash. Use of LINUX as OS.

EDUCATION AND TRAINING

04/09/2017 – 24/01/2020 Delft, Netherlands

MASTER OF SCIENCE IN AEROSPACE ENGINEERING, SPECIALIZATION IN SPACE ENGINEERING TU Delft

Level in EQF EQF level 7

Level in EQF EQF level 7

Level in EQF EQF level 6

LANGUAGE SKILLS

Mother tongue(s): **SPANISH** | **CATALAN**

Other language(s):

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production	Spoken interaction	
ENGLISH	C1	C1	C1	C1	C1
FRENCH	B1	B1	A2	A2	A2
GERMAN	A2	A2	A2	A2	A2

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

DIGITAL SKILLS

C/C#/C++ | Python | Java | OOP | Bash | DevOps | Knowledge of communication protocols (UART, SPI, I2C, IP, Spacewire, etc.) | GIT version control, Linux Command | Linux (Red Hat, Debian) | CCSDS and ECSS Standards

JOB-RELATED SKILLS

Job-related skills

- Fluency in the use of LINUX as OS and working with virtual machines through SSH protocol.
- Proficient skills in Python (NumPy, SciPy, Pandas), Bash and Matlab.
- Advanced user of C++, C# (C-Sharp). Advanced skills in Object Oriented Programming.