

# Roberto Pastor Muela Software Developer



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Madrid, Spain



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RobPasMue



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#### About me —

Aerospace engineer with a main focus on SW development. My main interests are related to numerical simulations, CFD, flight dynamics systems and astrodynamics. SW architect and developer in computationally-intensive programming languages. Great interest on algorithms and the physical knowledge behind them.

### Language Skills —

Spanish:	Mother tongue
English:	C1*
German:	B2*
French:	A2*

\*According to the Common European Framework of Reference for Languages (CEFR)

## Programming Skills -

C, C++, CUDA

Fortran

Python

lava

**MATLAB** 

#### **Experience**

2022/- Senior R&D Engineer ANSYS

Development of ANSYS SW products and supporting systems. Opensource PyAnsys libraries development. Technological transformation of
business units. Software architect for Python projects, driven by usability, customer feedback and automation. GitOps lead for PyAnsys
ecosystem teams. Code best-practices and tools guidelines (focused on
Python and C/C++). Provided guidance on client-service interactions
using REST and gRPC protocols. Product componentization using Docker
and service deployment on Kubernetes clusters. Conception of a developer portal PoC using Backstage.

2019/22 Flight Dynamics (FD) and Operations engineer *GMV*Precise orbit determination (POD) engineer in projects for institutional clients - Copernicus POD Service (for Sentinels 1, 2, 3 & 6). Experience in FD softwares (SWs) - NAPEOS, SIRIUS, Orekit, GODOT. SW architect and developer of in-house FD library in C++. CI/CD Responsible. Working with Agile methodologies. Knowledge on GNSS systems and signals processing. Design & impl. of API REST servers.

2017 Processing, automatization and development Airbus Def. & Sp. Development & automatization of qualification tests for rotary actuators used in antenna pointing mechanisms. Post-processing of data to determine system capabilities and requirements verification.

2014/16 Teaching Professional and Camp Coordinator Leisure Companies
Coordinator for children ranging 4 to 14 years old. Entirely taught in
English. Team managing capabilities and communication skills.

#### Education

2017/19 M.Sc. Aeronautical Engineering		UC3M
	Focus on CFD, space systems and numerical simulations	
	Master thesis: Analysis and control of turbulent skin friction using GPU	I-DNS

2015/16	B.Sc. Aerospace Engineering	Universität Stuttgart
	ERASMUS+ Exchange program	

	ERASHOS I Exchange program	
2013/17	B.Sc. Aerospace Engineering	<i>UC3М</i>
	Minor in Aerospace Propulsion	
	Bachelor thesis: Improvement of real-time plasma diagnostics	

## **Additional Courses**

2019	Java Programming Masterclass for SW Developers	80h
2019	C++ Basics and Introduction to C	25h
2018	Design thinking course at UC3M	23h
2018	AIRBUS: Innovative thinking	12h
2015	CATIA V5-6: An introduction to CAD	40h

## Awards

- 2015/16 ERASMUS+ Exchange Program scholarship 1 full academic year at the Universität Stuttgart
- 2013/18 Modules with honours: Propulsion Systems, Engineering Graphics, Advanced Mathematics, Fluid Mechanics, Thermal Engineering (6 ECTS each) and Aerospace Project Management (3 ECTS)
- 2013/15 "Excellent academic record" scholarship for university students

### Interests

I am a very active person who performs regularly multiple team sports, such as football and rugby. I also enjoy travelling and getting to know different cultures, since I consider it a mind-opening experience. I also enjoy living abroad (+6 years over my life).