# Roberto Pastor Muela

Software Developer

📋 25 April 1995

✉ 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

Java

MATLAB

## Experience

**2022/-**    Senior R&D Engineer    *ANSYS*
Development of ANSYS SW products and supporting systems. Open-source 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-DNS*

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

**2013/17**    B.Sc. Aerospace Engineering    *UC3M*
Minor in Aerospace Propulsion
Bachelor thesis: *Improvement of real-time plasma diagnostics*

## Additional Courses

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|---|---|---|
| 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).