DANIEL VIAÑO CASTRO

C++ SOFTWARE ENGINEER

👤 ABOUT

Experienced C++ Software Engineer specializing in aerospace, air traffic management, and embedded systems. Skilled in developing robust, high-performance solutions for mission-critical applications, with a strong background in system integration and modern software methodologies. Proven track record in defense, surveying, and advanced imaging systems.

💼 WORK EXPERIENCE

Darwin Recruitment	Heerbrugg, St. Gallen, Switzerland

🌐 https://www.linkedin.com/company/darwin-recruitment-3/
January 2025 – Present

Embedded Software Engineer (Contractor)

Embedded Software Engineer for Hexagon Productization Center, developing hybrid airborne sensor systems for advanced imaging and data acquisition.

Highlights

Developed firmware in C++ for airborne cameras and LiDAR

Conducted unit testing with gtest and integration testing with pytest

Focused on image processing and data acquisition

Developed for Embedded Linux (Zynq UltraScale+) with Petalinux SDK

Akkodis	Heerbrugg, St Gallen, Switzerland

🌐 https://www.linkedin.com/company/akkodis/
May 2022 – December 2024

Embedded Software Developer (Consultant)

Developed handheld image acquisition devices for SAFRAN Vectronix, focusing on sensor integration, user interface, testing, and system validation.

Highlights

- Developed firmware in C++ using Qt for user interface

- Integrated sensors for handheld image acquisition devices

- Conducted software testing and system validation with gtest and Robot Framework

- Developed for different Embedded Linux platforms with Petalinux SDK and Yocto

Ad Maiorem Consulting — Gijón, Asturias, Spain
🌐 https://www.linkedin.com/company/ad-maiorem/
March 2020 – May 2022

ATC Software Developer (Consultant)

Built and maintained surveillance software for Air Traffic Control systems for INDRA, supporting SACTA and iTEC alliance members in mission-critical environments.

Highlights

- Maintained legacy code in Ada for surveillance software

- Implemented new capabilities in C++, such as the integration of ADS-B

- Developed for Air Traffic Control systems

- Ensured mission-critical software reliability

Pildo Labs — Rozas Aerodrome, Lugo, Spain
🌐 https://www.linkedin.com/company/pildo-labs/
October 2017 – February 2020

Aerospace Engineer

Designed and developed coordination systems for manned and unmanned aircraft, including air navigation and ADS-B/GNSS acquisition solutions for aerospace initiatives.

Highlights

- Developed navigation and communication software in C++ for 25 kg UAV and manned helicopters

- Used C++ with Qt for UI in ground control systems

- Integrated ADS-B and GNSS acquisition solutions

- Designed coordination systems for aerial surveillance and firefighting

EUROCONTROL — Brussels, Belgium
🌐 https://www.linkedin.com/company/eurocontrol/

March 2017 – December 2017

Trainee

Conducted Pan-European studies on continuous climb/descent operations, managed ADS-B data, and validated tools and configurations for air traffic research.

Highlights

Filtered and analyzed ADS-B data for air traffic research

Validated tools and configurations for continuous climb/descent operations analysis using Java

Universitat Politècnica de Catalunya   **Castelldefels, Barcelona, Spain**

🌐 https://www.linkedin.com/school/universitat-politecnica-de-catalunya/
September 2016 – February 2017

Communications Trainee

Managed web, email, and social networks for the student association, enhancing digital communication and engagement.

Born Positiu S.L.   **Castelldefels ESA-BIC, Barcelona, Spain**

February 2016 – September 2016

Android Developer

Developed a driving support system, including GPS and RTK training modules for mobile platforms.

Highlights

Android app developed in Java with extensive use of Google Maps API and location services

👥 VOLUNTEER

Club Waterpolo Lugo

🌐 https://www.linkedin.com/company/19075422
April 2018 – December 2020

President

Founder and first president of Club Waterpolo Lugo.

Highlights

Founded and led Club Waterpolo Lugo from its inception to its establishment as a recognized sports entity with several teams and categories.

◎ CONTACT

📍	Rorschach, St. Gallen 9400 CH
📞	+41772779118
✉	danividanivi@gmail.com
🔗	**LinkedIn** daniel-viano

🏛 EDUCATION

2012 2017

Universitat Politècnica de Catalunya · BarcelonaTech (UPC)

🎓 Bachelor's Degree

Aerospace Engineering

Courses

> Specialized in Air Navigation Engineering, with a focus on aerospace principles, flight dynamics, avionics, and air traffic management systems.

2018 2019

Universidade de Santiago de Compostela

🎓 Master's Degree

Unmanned Aerial Systems Engineering and Operations

Courses

> Specialized in unmanned aerial systems design, operations, regulations, integration with airspace, and advanced avionics for drones.

⁝☰ SKILLS

Programming Languages and Frameworks `Expert`

`C++` `Python` `Ada` `CMake` `GoogleTest` `pytest` `gtest`

Software Development & Methodologies `Expert`

`Scrum` `Jira` `Git` `Unit/Integration Testing` `Github/Gitlab CI/CD` `AI-assisted Development`

Embedded Systems `Advanced`

`Embedded Linux` `Yocto Project` `Petalinux` `Firmware Development` `Software Validation` `Systems Integration`

Air Traffic & Aerospace `Advanced`

`Air Traffic Control` `ADS-B` `GNSS` `Unmanned Aerial Vehicle (UAV)` `Aviation` `Systems Engineering`

Image Processing & Sensors Intermediate

Photogrammetry   LiDAR   GPS   RTK   Sensor Integration

☑ REFERENCES

Daniel is an outstanding software engineer with strong C++ and embedded systems expertise. He consistently delivers high-quality solutions and demonstrates excellent teamwork, always willing to support and share knowledge with colleagues. His technical skills, work ethic, and multilingual abilities make him a valuable asset to any team.

— Pablo Ramos Lainez