

DANIEL VIAÑO CASTRO

C++ SOFTWARE ENGINEER



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.

IBI 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

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

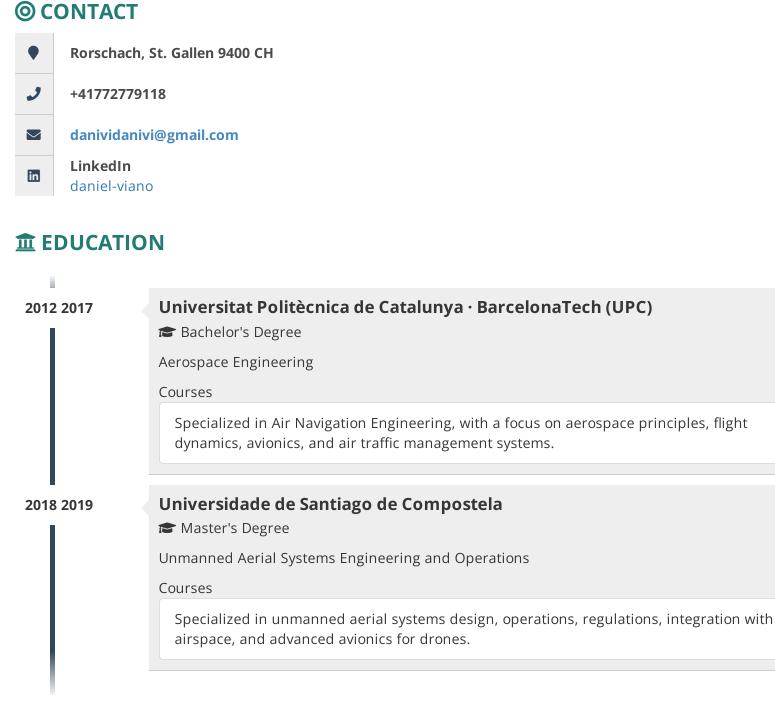
April 2018 - December 2020

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.



ESKILLS

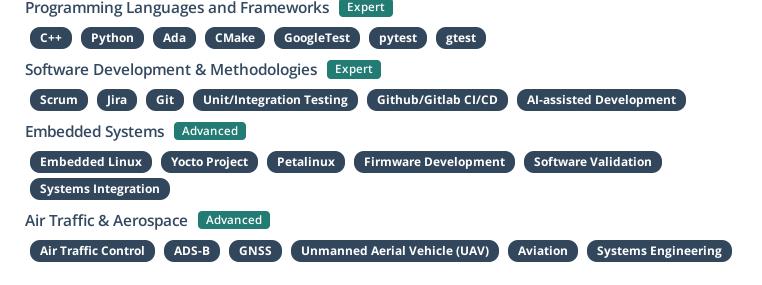


Image Processing & Sensors Intermediate

Photogrammetry

Lidar

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