

Javier Agüera | C/C++ Embedded SW | Defense & Real-Time Systems

[in LinkedIn](#) | Open to remote / Relocation |

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Skills

C/C++ & Embedded: C, C++, Modern C++, embedded software, low-level debugging, memory/performance awareness, HW/SW integration.

Real-Time & OS: Linux, VxWorks, RTOS, real-time and resource-constrained environments, system configuration, production-grade validation.

Communications & Interfaces: UDP/TCP, socket-based communication, networking fundamentals, MQTT, RPC/WebSockets familiarity, SPI familiarity, protocol debugging.

DevOps & Tooling: Git, Jenkins, CI/CD, Docker, Python/Bash scripting, build/deployment workflows.

Reliability & Validation: safety-critical systems, debugging, integration, verification, validation, FAT, RCA, logs, observability, support to certification.

Mission-Critical Systems: Defense SW, railway systems, multidisciplinary integration, production infrastructure.

Additional: Kubernetes/Terraform familiarity, Grafana, VictoriaMetrics.

Experience

QuickNode

Blockchain Infrastructure Engineer | Production Reliability

06/2025 - Current

- Work close to production blockchain infrastructure across RPC services, WebSockets, APIs, indexing behavior, latency, rate limits, and degraded service scenarios.
- Debug complex distributed-system behavior using scripts, logs, request/response analysis, endpoint testing, and controlled reproduction workflows.
- Analyze failures across application integrations, infrastructure behavior, network conditions, and chain-specific execution patterns to isolate root cause.
- Translate production issues into actionable engineering context, including reproduction steps, affected components, observed behavior, impact, and recommended fixes or mitigations.
- Collaborate directly with Infrastructure, Product, Engineering, Support, and technical customers during incidents, degraded services, and high-priority investigations.
- Use Grafana, VictoriaMetrics, and VictoriaLogs to correlate metrics/logs, identify abnormal patterns, and support production reliability decisions.

Embedded Software Engineer

[CAF](#)

Bilbao, Spain

05/2022 - 07/2024

- Developed C and Modern C++ software for safety-critical railway systems under strict reliability, timing, memory, and certification constraints.
- Owned and maintained a key embedded software subsystem within a large-scale railway platform, from requirements implementation to integration validation.
- Debugged and validated system behavior across Linux/VxWorks-based environments, including deployment, runtime analysis, integration issues, and constrained-system behavior.
- Led laboratory software integration by configuring networking, deploying binaries, testing system behavior, and supporting CI/CD workflows with Jenkins and Git.

Software Development Engineer

[Indra](#)

Madrid, Spain

04/2020 - 04/2022

- Developed C/C++ software for DIRCM, an advanced aircraft countermeasure laser system, across VxWorks, Linux, SPI, and DSP.
- Designed, implemented, and validated safety-critical software modules under defense-grade quality standards and high-pressure delivery deadlines.
- Worked close to hardware/software integration, debugging embedded behavior and supporting multidisciplinary coordination with systems, integration, and validation teams.
- Supported Factory Acceptance Tests and subsystem certification through technical reviews, debugging, integration testing, and validation evidence.

Software Development Engineer

[Indra](#)

Madrid, Spain

03/2018 - 03/2020

- Developed embedded and networked software for a train integrity monitoring pilot using Wireless Sensor Networks and IoT technologies.
- Implemented C++ functionality across VxWorks/Linux environments, with Python scripting and MQTT-based communication for system integration.
- Supported prototype integration, debugging, and validation activities across software, networking, and field-oriented system behavior.

Education

Degree in Telecommunications Eng

[University of Malaga](#)

Málaga, Spain

2012 - 2017

Advanced Degree, Telecom & Computer Systems

[I.E.S. Mare Nostrum](#)

Málaga, Spain

2010 - 2012