

Borja Castellano Extremadouro

Software Engineer, Rust & Systems



Systems Software Engineer with a strong foundation in mathematics and experience in low-level programming using Rust, C/C++, and Java. Skilled in parallelism, algorithm optimization, and high-performance computing, with a proven track record of self-directed learning. Seeking opportunities to apply expertise in scientific computing and systems-level software engineering to impactful projects.

LABORAL EXPERIENCE

• 08/2024-04/2025 Freelance Software Developer

Provided end-to-end software development services for multiple companies. Ensured that all solutions met client requirements and were delivered on schedule. Experienced in REST API deployment using Spring and Actix, Proxmox and infrastructure management, CI/CD automation, communication protocol design, and high-performance software development.

• 04/2025-07/2025 Scientific Software Engineering Intern, CESGA

Developed and implemented algorithms in HPC environments to support research projects on uncertainty quantification and performance optimization. Worked with MATLAB, Fortran, C, C++, and Rust, MPI, CUDA and OpenMP. Conducted scalability studies and improved algorithm speedup by up to 95%. Also contributed to cybersecurity research, addressing issues related to weak hashing and improper SQL management in a PHP codebase.

EDUCATION

USC and UVa (Spain):

- 2018-2022 Bachelor's Degree in Mathematics

IES Chan do Monte (Spain):

- 2023-2025 Bachelor's Degree in Software Engineering
Grade: 9.31 / 10 (approx. GPA: 4.0 - Highest Honors)

OPEN SOURCE

Actively contributing to Aria, a Rust-based interpreted scripting language focused on code safety. Responsible for performance optimization, test maintenance, and feature development for both the language and its virtual machine.

KNOWLEDGE

Java, JavaFX, Hibernate, Spring, C, C++, Rust, C#, MySQL, MongoDB, MSSQL, HPC, CUDA, parallelism, MPI, Linux, Proxmox, Bash, GitHub, Docker, CI/CD, compilers, embedded systems, REST APIs, communication protocols, HTTP, TCP/IP, interpreters.

SKILLS

Analytical reasoning, time management, leadership, teamwork, decision-making, problem-solving, project management, creative thinking, self-motivation and continuous learning, communication skills (oral and written), conflict resolution.

LANGUAGES

Castilian Spanish English

CONTACT



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ABOUT

- **Availability:**
Immediately available for all schedules and work modalities.
- **Address:**
Lake Tapps, WA, USA
- **Citizenship:**
Spanish & American

PORTFOLIO



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