# Sergio Pérez Camacho

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About Software engineer with a strong focus on low-latency systems, algorithms, data processing, and real-time rendering. Experienced in system design and programming with an emphasis on performance, code correctness, and readability. Highly interested in security, general AI, and emerging technologies. Autonomous, self-driven, and committed to delivering high-quality solutions.

## Education

2003 - 2010 **Computer Engineer**, University of Castilla-La Mancha Final degree project awarded with summa cum laude.

# Work Experience

2016- Senior Software Designer,  $\it Ericsson, \, Madrid, \, Spain \, Present$ 

During my time in Packet Core, I have contributed to Deep Packet Inspection functionalities, including programming data structures, debugging and logging utilities, and traffic analysis features. Real-time reporting of traffic statistics and events has also been part of my responsibilities, along with requirements gathering, documentation, support, security, and concurrency management. I have driven the adoption of new C++ features and mentored other developers.

Awarded *Ericsson Key Contributor* for my primary contribution to optimizing TCP over radio connections. I designed and implemented key components of the functionality and conceived one of the algorithms successfully used during the second phase of the product. I remain an active member of the development and maintenance team.

Currently developing a new QUIC-based functionality to enhance security in mobile connections.

- 2011 2016 Software Designer, Blue Telecom Consulting, Madrid, Spain
  - SASN [2011-2013] Developed features and fixes for Ericsson's Service Aware Support Node product. Main contributions included license management, low-latency event and statistics generation and serialization, and general code maintenance.
    - DPI [2013-2019] Worked on *Deep Packet Inspection* and *Traffic Optimization* for Ericsson products. Developed multiple traffic analysis features, always prioritizing performance and low latency. Collaborated with a team of Ericsson engineers to develop functionality for optimizing TCP/IP connections over radio networks.
- 2011 2015 **Teacher**, Master's Program in Video Game Programming, University of Castilla-La Mancha

Taught classes on specialized data structures for 3D representation, modern C++, and serialization.

Authored chapters on these topics in books published from this course, which became bestsellers in their category on Amazon for several years.

- 2009 2011 **Technologist**, University of Castilla-La Mancha, Ciudad Real, Spain
  - DEV Developed a tool for calculating positioning in a real-world environment and overlaying digital graphics (Augmented Reality). This state-of-the-art application used C++, OpenGL, and OpenCV.
  - ADMIN System administration of Linux systems. Managed and maintained several services (web, DB, CVS, mail).

#### Certifications

- 2024 BCSS CNE Experienced Automation assessment, Ericsson, Experienced Level in the CNE Automation Area.
- 2024 BCSS CNE Fundamental Automation assessment, Ericsson, Fundamental Level in the CNE Automation Area.
- 2024 **Cloud Native Fundamental**, *Ericsson*, Provided to employees who have demonstrated sufficient Fundamental knowledge on Cloud Native critical skills through Fundamental Assessment.

# Projects

2008 - 2010 **Hesperia**, *University of Castilla-La Mancha*, Ciudad Real, Spain, Hesperia developed a state-of-the-art technology in security, video surveillance, and operations monitoring for infrastructure and public spaces.

### **Publications**

- 2012 **Desarrollo de Videojuegos.Programación Gráfica**, *Bubok*, Co-author Video games development. Graphic programming.
- 2012 **Desarrollo de Videojuegos. Técnicas Avanzadas**, *Bubok*, Co-author Video games development. Advanced techniques.

## Languages

Spanish Mother language

English Advanced/Fluent

## Interests/Hobbies

Music Amateur musician and guitarist.

Cinema Cinamatography and color grading.

Sports Healthy lifestyle.

#### Miscelaneous

Programming C++, C, Python. Rust, Assembly, Networking Internet Protocols, Wireshark

Lenguages Delphi, C#, Objective C.

Virtualization VirtualBox, VMWare, QEmu Containers Namespaces/CGroups, Docker

C.V.S. Git CI/CD Gerrit, Jenkins, GitLab CI

Editors/IDEs Emacs, CLion, VSCode OS GNU/Linux, Windows, OSX, Haiku