

Gustavo Castro

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Engineering Manager | Frontend Platform Leadership | SaaS | IoT | Developer Experience

Senior Engineering Manager and R&D leader with 25+ years of experience building scalable SaaS and IoT platforms and leading high-performing, cross-functional engineering organizations. Strong background in platform engineering, frontend architecture leadership, and developer productivity initiatives supporting large engineering teams.

Proven track record scaling organizations, restructuring platforms, unifying product ecosystems, and leading platform teams responsible for shared tooling, architecture standards, and engineering workflows. Experience leading teams developing web applications using React, with a focus on scalable architecture, consistency, and improved developer experience.

Extensive experience delivering telemetry platforms, AI systems, industrial IoT solutions, and large-scale distributed software supporting real-world operations.

Core Competencies

- Engineering Leadership & Team Scaling
- Frontend Platform Leadership & Developer Experience
- Software Architecture & Platform Design
- SaaS Platform Engineering
- Web Architecture & UI Platform Evolution
- Platform Teams & Shared Tooling
- Developer Productivity & Engineering Workflows
- IoT & Telemetry Systems
- Scalable Distributed Systems
- Product & Platform Integration
- AI & Computer Vision Platforms
- Cross-Functional Technical Leadership

Technical Skills

- **Languages:** C++, C#, Python, Java, SQL
- **Web & SaaS:** Web Platforms, React Team Leadership, UI Architecture Improvements, Component Modularization
- **Architecture:** Platform Architecture, Distributed Systems, Scalable SaaS Platforms
- **IoT & Industrial:** MQTT, TCP/IP, Telemetry Systems, Hardware Integration, Industrial Protocols
- **AI & Data:** Machine Learning, Computer Vision, Image Processing, OpenCV
- **Tools & Process:** Git, Jira, Agile Methodologies, Platform Restructuring, Engineering Workflows

Professional Experience

Creare Sistemas SA – Engineering Manager

11/2023 – Present

- Lead multidisciplinary engineering teams across frontend, backend, hardware, and data science delivering SaaS and IoT platforms focused on vehicle telemetry and AI safety systems.
- Scaled engineering organization from 15 to 38 engineers while expanding responsibility to multiple software products.
- Led platform teams responsible for shared architecture, tooling, and engineering standards across products.

- Managed teams developing web applications including React-based interfaces, focusing on scalable architecture and development consistency.
- Directed platform restructuring initiatives to improve infrastructure, component modularization, UI consistency, and engineering efficiency.
- Unified multiple company solutions into a cohesive SaaS platform architecture.
- Managed telemetry data platforms supporting heavy vehicles and industrial operations.
- Improved development workflows and collaboration practices across engineering teams.
- Coordinated research and innovation initiatives with Federal University of Rio Grande (FURG).
- Delivered AI safety camera solutions and operational intelligence platforms.

Ponfac SA – R&D Manager

10/2019 – 07/2023

- Led R&D and software engineering teams delivering AI, robotics, and computer vision solutions integrated into industrial and SaaS platforms.
- Defined architecture and technical strategy for computer vision and AI platforms.
- Built a No-Code computer vision platform integrating SDKs, OpenCV, and AI solutions into a unified development environment.
- Led cross-functional engineering teams across software and hardware domains.
- Managed innovation programs and technical roadmap planning.

Elo Sistemas Eletronicos SA – Software Development Manager

08/2010 – 09/2019

- Managed software engineering teams developing large-scale Smart Grid and industrial IoT platforms.
- Led development of distributed telemetry systems for alarms, monitoring, and remote data collection.
- Architected scalable infrastructure supporting large volumes of measurement data.
- Managed cross-functional teams delivering network infrastructure devices and embedded systems.
- Defined software architecture standards and engineering processes.

ALTUS SA – R&D Manager

08/1999 – 07/2010

- Led engineering teams developing industrial automation, embedded software, and high-availability systems.
- Managed a 25-person engineering organization across software, hardware, and systems engineering.
- Delivered fault-tolerant industrial automation platforms and programmable controller systems.
- Led international technical collaborations with engineering teams in Europe and Asia.

Fundação Bradesco – Technical Instructor

03/2002 – 10/2011

- Instructor in electronics, networking, industrial automation, programming, and microcontrollers.

Education

- **MBA – Management of Technology-Based Companies** | UNISINOS
- **Bachelor of Computer Science** | UNIVALI

Languages

- **Portuguese:** Native
- **English:** Professional Fluency

International Experience

- Technical and engineering collaboration in USA, Germany, India, and China including system integration, architecture discussions, and project delivery.