Gustavo Castro

Senior Engineering Manager | Research and Development Leader
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Professional Summary

Highly accomplished **Senior Engineering Manager** with a distinguished 25-year track record building and scaling high-performing software teams. My expertise lies in delivering innovative **SaaS** and **IoT** solutions, overseeing full-stack development environments (**Java, Node.js, Python**) and complex cloud infrastructures (**Oracle Cloud, AWS**).

Throughout my career, I have expanded engineering organizations from 15 to 38+ engineers, leading the development of **AI/Computer Vision** systems and **high-availability platforms** for mission-critical industries. My extensive international experience (USA, Germany, China) and background in hardware-software integration provide a unique advantage in managing **connected systems** and **edge computing** environments, ensuring operational excellence even in remote or semi-connected settings (Smart Grid/Telemetry).

Core Skills

- **Methodologies:** Engineering Management, Agile/Scrum, SDLC, CI/CD, Product Management (QA/PO).
- **Languages & Stack:** **Java**, **Node.js**, **Python**, C++, C#, Next.js, SQL.
- **Cloud & Infrastructure:** SaaS Architecture, **Oracle Cloud (OCI)**, **Amazon Web Services (AWS)**, Microservices.
- **IoT & Specialized:** Computer Vision, OpenCV, Edge Computing, MQTT, TCP/IP, Industrial Protocols, Remote Telemetry, Smart Grid.

Professional Experience

Creare Sistemas SA | *IT Development Manager*
Canoas, RS (Remote/Hybrid) | 11/2023 – Present

- **Team Leadership & Stack Management:** Lead and manage a multidisciplinary engineering team (Backend, Frontend, Data Science) developing robust SaaS solutions. Directed the technical roadmap for moving legacy systems to modern stacks using **Java** and **Node.js**.
- **Cloud Strategy (Oracle/AWS):** Orchestrated the SaaS infrastructure strategy, utilizing **Oracle Cloud (OCI)** as the primary production environment and **AWS** for secondary redundancy, storage, and specific microservices.
- **SaaS Development:** Driven the full software development lifecycle (SDLC) for the company's core platform, ensuring adherence to Agile best practices and high-quality coding standards.
- **Data Security & Telemetry:** Managed complex telemetry data pipelines to enhance platform security and reliability, ensuring compliance with industry regulations for sensitive data protection.
- **Platform Restructuring:** Leading initiatives to modularize infrastructure and improve API interoperability, significantly enhancing the User Experience (UX) and system scalability.

Ponfac SA* | *IT Development Manager*
Porto Alegre, RS | 10/2019 – 07/2023

- **Research, Development and Innovation Leadership:** Advanced from Research and Development Manager to CTO, overseeing all software products, including **Mobile Solutions**, **Computer Vision**, and IoT systems.
- **AI and Algorithms:** Led the development of **Python-based AI algorithms** for real-time image processing, creating an "area-to-weight" conversion system that processed visual data at the edge.

- **Remote Connectivity and IoT (Strategic Asset):** Managed **telemetry systems for heavy vehicles** (transport and agribusiness), ensuring consistent data transmission and system availability in remote, low-connectivity environments—experience directly transferable to **shipboard/satellite operations**.
- **Product Integration:** Designed a **No-Code system** for computer vision, integrating proprietary SDKs with **OpenCV** into a single user-friendly platform. Acted as Product Owner and QA Lead to ensure alignment with business goals.

Elo Sistemas Eletronicos SA | *IT Development Manager*
Porto Alegre, RS | 08/2010 – 09/2019

- **Smart Grid and Distributed Systems:** Managed complex integration projects for **Smart Grid** infrastructure (Industrial IoT), coordinating data flow between remote hardware meters, reading servers, and consumer applications.
- **Project Management:** Oversaw the development of network routers and high-availability infrastructure, managing budgets, schedules, pilot production, and "hardware-to-software" integration teams.
- **Team Scaling:** Responsible for process improvement, outsourcing management, and defining software architecture for critical energy distribution networks in Brazil.

Fundação Bradesco | *Professor - Technical Course in Electronics*
Gravatai, RS | 03/2002 – 10/2011

- Taught Microcontrollers, Industrial Automation, Local Area Networks, and Informatics standards.

ALTUS SA | *Research and Development Manager*
Sao Leopoldo, RS | 08/1999 – 07/2010

- Managed the Research and Development sector and a Software Factory team of 25 people. Delivered industrial automation products, embedded software, and high-performance systems for oil platforms and fault-tolerance applications.

Education

MBA in Management of Technology-Based Companies University of Vale do Sinos - UNISINOS, Sao Leopoldo, RS | *2006*

Bachelor's in Computer Science University of Vale do Itajaí - UNIVALI, Itajai, SC | *1995*

International Experience

- **USA (2015):** Monitoring integration tests for management systems and remote energy meters.
- **Germany (2008/2009):** Hannover Fair participation and technical training.
- **India and China (2008-2011):** Technical specification meetings, raw material supplier visits, and partner development management.

Languages

- *English: Fluent*
- *Portuguese: Native*
- *Spanish: Basic*