



Luis Quesada

Senior Engineering Manager

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SUMMARY 26+ years coding, 21+ years managing systems, 11+ years in industry, and 7+ years managing people. Technical expertise in distributed systems and user-facing products, strategic vision, and can-do attitude. I drive fast, impactful solutions, tackling complex problems with wide consensus and innovation.

SKILLS Systems: Architecture, performance, automation, monitoring, load balancing, capacity, and data integrity
Artificial Intelligence: Infrastructure and solutions, applied Generative Multi-modal Models
Computer Languages: Go, Java, Python, JavaScript, TypeScript, PHP, Bash shell script, and SQL
People: Organization design, career development, team health, coaching, presentation, and negotiation
Languages: Spanish (Native), English (C2), German (B2), Swiss German (B1), and Esperanto (B1)

EXPERIENCE Google, 2014 – currently

YouTube Infrastructure, Software Engineering — Senior Engineering Manager (L7)

- Improved the performance of high-throughput pipelines by 1000x. **Award:** Performance Excellence
- Built a scalable platform that integrates 100+ backends and Large Language Models, enabling rapid development and deployment of complex insights. **Awards:** Engineering + Feature Excellence

Cloud Artificial Intelligence, Site Reliability Engineering — Senior Engineering Manager (L5→L7)

- Revamped capacity, monitoring, rollouts, data integrity, and frameworks across the entire developer organization, garnering top-down support, influencing the work of 50+ engineers, and leading the delivery, which improved the velocity, efficiency, and reliability of tens of products and >1K engineers. **Awards:** Cloud + Core + Google Tech Impact, Perfy, Tech Debt Busters, Tech Debt Busters
- Led the productionization of three large Cloud Artificial Intelligence products across reliability, scalability, security, and process requirements, and enabled their launch.

Datacenter Software, Site Reliability Engineering — Technical Leader/Engineering Manager (L5)

- Sped up a project to revamp critical datacenter systems and landed it one year ahead of time.
- Troubleshoot and addressed incidents with company-wide impact as part of on-call responsibilities.

Apps Storage, Site Reliability Engineering — Technical Leader (L4→L5)

- Developed capacity models for products with >1B users and delivered significant resource savings.
- Responded to user-facing outages and performed complex operations without downtime while on-call.
- Led the company-wide migration to a new storage service. **Award:** Feats of Engineering

ACADEMIA University of Granada, 2010 – 2014

Department of Computer Science and Artificial Intelligence — Research Fellow

- Developed an on-the-fly compiler of compilers that takes as input a model consisting of Java classes and resolves ambiguities by applying syntactic constraints, semantic constraints, and probabilities.
- Applied model-based compilers to Natural Language Processing and language prototyping.
- Directed a Master Thesis on a language for music prototyping. **Award:** Best Thesis (as director)
- Developed an unsupervised markerless 3-degree-of-freedom real-time motion tracking technique that runs on a single low-budget camera.
- Taught courses on Knowledge Engineering and Artificial Intelligence Models.
- Mentored two students doing software engineering internships at software companies.

STUDIES University of Granada, 2004 – 2010

Master in Research, Soft Computing and Intelligent Systems. GPA 9.3/10.

- Developed lexical analyzers and parsers with ambiguity support for model-driven data mining.

Bachelor of Science, Information Systems Engineering. GPA 8.7/10. **Award:** First of Class

Master of Science, Computer Science. GPA 9.2/10. **Awards:** First of Class, National Award, Honors

- Developed a Java code similarity detector that applies heuristics and aggregation at bytecode level and applied it to successfully identify plagiarised Java code. **Award:** Best Thesis

Bachelor of Science, Computer Systems Engineering. GPA 8.7/10. **Award:** First of Class

CERTIFICATES Artificial Intelligence

- Professional Certificate on Generative Artificial Intelligence Engineering — IBM, 2024
- Professional Certificate on Artificial Intelligence Development — IBM, 2024

Cybersecurity

- Professional Certificate on Cybersecurity — Google, 2024
- CERTYRED Professional Certificate on Security — University of Salamanca, 2011
- Introduction to Auditing of Information Systems — University of Salamanca, 2010
- Security of Networked Information Systems — University of Granada, 2010

User Experience

- Professional Certificate on User Experience Design — Google, 2024

Music

- Modern Musician Specialization — Berklee College of Music, 2014
- Grade 5 Music Theory — The Associated Board of the Royal Schools of Music, 2013
- Grade 4 Singing — The Associated Board of the Royal Schools of Music, 2013

PUBLICATIONS **Generative Artificial Intelligence**

- Developed ComfyUI nodes for [inpainting only on masked area](#)
- Developed ComfyUI nodes for [interactive user interface](#)
- Developed ComfyUI nodes for [prompt combination and gallery generation](#)

Distributed Systems

- Published a [tech talk](#) and an [article](#) on capacity management
- Published a tech talk on [Google's production environment](#)
- Published a tech talk on [the Paxos algorithm](#)

Cybersecurity

- Developed several [scripts](#) on network exploration, hardening, and applications

Reverse Engineering

- Decompiled a Java splicer and extended it with a [command-line interface](#)
- Developed a [Java bytecode similarity detector](#)
- Developed a [manifest-based run-time subclass finder](#) for Java
- Developed a [tool to extract the Voxatron virtual console player](#) into a stand-alone web

Language Processors

- [Designed](#) and developed [lexical analyzers](#), [parsers](#), and a [model compilers](#) with ambiguity support
- [Designed](#) and [developed](#) parallel finite state machines for fast ambiguity-supporting lexical analysis
- Designed a [domain-specific language for music prototyping](#)

Computer Vision

- [Designed](#) and [developed](#) a 3D motion tracking solution that works on a single camera
- Proposed [hardware for voxel-based 3D object modeling](#)

Video games

- Developed a [rogue-like videogame](#) in JavaScript with no frameworks
- Developed a [web-based multiplayer videogame](#) in PHP+MySQL, with >10K players in the 2000s
- Developed an [arcade maze videogame](#) in Java
- Developed a [physics engine and 3D world videogame prototype](#) in Java
- Developed a [top-down shooter videogame](#) in GameMaker
- Developed a [shooter videogame](#) in C for the Game Boy Advance console
- Developed a [dungeon videogame prototype](#) in Java with custom physics and graphic engines
- Developed a [physics engine and basic taxonomy](#) in GameMaker
- Developed a [dungeon videogame prototype](#) in Go with custom physics and inventory engines
- Developed a [mini-game](#) for the Voxatron virtual voxel-based console

Team Management

- Co-authored a book chapter on [managing team overload](#)

Literature

- Authored [several Spanish books for children](#) using generative artificial intelligence

Music

- Composed, recoded, and produced [several indie rock, synthesizer, and piano albums](#)
- Produced [several alternative rock albums](#) using generative artificial intelligence