

Tomás de las Casas

Principal Engineer | AI & Blockchain Innovator

🚀 Building AI-powered solutions | 🔑 Blockchain infrastructure expert | 🧠 PhD-level problem solver

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The Story

From chemistry research to cutting-edge software engineering. 12+ years transforming complex challenges into elegant solutions. Currently crafting AI search experiences and blockchain tools.

What drives me: The intersection of emerging tech and practical applications. I thrive where innovation meets execution.

Recent Impact

🧠 AI Search Engine @ Bimba y Lola (2024–Present)

Building next-gen e-commerce search with vector databases and LLM. Transforming product discovery through intelligent, context-aware experiences. *Stack: Python, TypeScript, FastAPI, React, Terraform, AWS, Vector DBs, AI/LLM*

🔑 Blockchain Infrastructure @ Horizen Labs (2020–2024)

Architected developer tools and DevOps for Horizen crypto platform. Created scalable block explorers, wallets and infrastructure supporting millions of transactions. *Stack: TypeScript, Python, Bash, FastAPI, React, Terraform, Ansible, Blockchain Protocols, AWS, DevOps*

🏠 Microservices @ Rent the Runway (2018–2020)

Led event-driven microservices for complex logistics. Built resilient systems processing thousands of daily orders. Integrated with different shipment companies systems. *Stack: Java, Kotlin, Dropwizard, Spring Boot, Microservices, Event-Driven Architecture*

Technical Arsenal

Languages	→ TypeScript, Python, Java, Go, Rust, Kotlin, Bash, Terraform
Frameworks	→ Spring Boot, Node.js, React, Flask, FastAPI, Dropwizard
Cloud	→ AWS, Azure Google Cloud, Linode, Docker, Kubernetes, Serverless
Databases	→ PostgreSQL, MongoDB, MySQL, Oracle, MSServer
Blockchain	→ Bitcoin, Ethereum, Zen, Block Explorers, Wallets, Solidity Smart Contracts
AI/LLM	→ ChatGPT, Claude Code, Gemini CLI, Vector DBs (Typesense, Weaviate)
Architecture	→ Microservices, Event-driven, RESTful APIs, GraphQL, gRPC, SOAP

The Journey

2018–Present: The Agile Monkeys | *Principal Developer* Innovation playground. From blockchain tools to AI search engines, leading projects that push boundaries while delivering business value.



2016–2018: Paradigma Digital | *Developer*



Mastered microservices and cloud-native architecture. Led monolith-to-microservices migration that became company reference.

2013–2016: Enterprise Foundation | *Developer* Built enterprise Java applications. Learned scalable, maintainable code fundamentals.

2010: The Scientific Foundation | *PhD Organic Chemistry* Six years of research taught me to break down complex problems and find elegant solutions.

Why I'm Different

 **Scientific Rigor:** PhD background brings analytical depth to software architecture  **Innovation Focus:** I identify emerging technologies and find practical applications

 **Full-Stack Vision:** From AI algorithms to DevOps infrastructure  **Business Impact:** Build technology that solves real problems, not just showcases

What's Next

Exploring advanced AI/LLM in search systems, blockchain interoperability, edge computing, and quantum cryptography applications.

Let's build something amazing: <https://tomascasas.dev>