

# MAURO COLELLA

## SENIOR FULL-STACK ENGINEER

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Senior Full-Stack Engineer with over 15 years of experience building high-performance systems across cloud and data engineering and machine learning domains. Proven track record of delivering scalable solutions and boosting business growth. Fluent in **English, French, and Italian**. Certified with **MIT (data science)**, **AWS** and **Google Cloud**. Currently advancing management and leadership skills through **MSM/MBA studies at UIUC Gies**. Extensive remote work experience (Slack, Zoom, Meet) and strong commitment to remote work ethics.

## Language Proficiency

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- **French** – Native; TEF Canada (NCLC 12, C2, May 6, 2025)
- **English** – IELTS (Overall 8.5, C2 equivalent, April 6, 2025)
- **Italian** – Fluent

## Technical Expertise

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### Full-Stack Development

- **Front-End:** React, Vue, Angular, **TypeScript**, JavaScript, Next.js / **Back-End:** Node.js, Java, **Python**, PHP, Rust, Ruby, C++, C# / **APIs:** REST, GraphQL, Apollo, Relay

### Cloud and DevOps

- **AWS, Google Cloud, Azure** / Kubernetes, Helm, **Docker** / MLOps, DataOps, Cloud Architecture / Jenkins, **Git**, GitHub/Gitlab CI, CircleCI

### Data and ML

- **PostgreSQL**, MySQL, NoSQL, ELK / **Data Engineering, Data Science** (MIT Certified) / Python, PyTorch, TensorFlow, Vertex AI / **LangChain**, LLMs, **OpenAI API**

### Frameworks and Systems

- WebAssembly (Wasm), Microservices / **Agile**, Scrum, TDD (Test-Driven Development) / Git, Linux, NixOS, Nix

## Professional Experience

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### Mellenger Interactive | Full-Stack Developer

December 2024 – Present

**AWS • JavaScript • TypeScript • Node.js • NestJS • Auth0 • PostgreSQL • Wasm • Rust • Machine Learning • Python**

For Mellenger, I served as an internal AI evangelist and trainer while delivering complex AI and data solutions for external clients in marketing and life sciences, spanning back-end and front-end integration. Among tasks, for their client **Deep Origin** I:

- **Increased interoperability across life science research teams** by architecting cloud-based application platforms for shared scientific workflows.
- **Accelerated platform delivery** by implementing core components hands-on and coordinating system development and deployment.
- **Strengthened platform stability and technical direction** by guiding technology selection, testing, and system evolution.
- **Expanded engineering capacity and execution quality** by providing technical leadership and mentoring engineers.

### QDX Technologies | Full-Stack Engineer

October 2023 – November 2024

**Google Cloud • JavaScript • TypeScript • Node.js • React • Redux • Auth0 • Apollo • Relay • GraphQL • PostgreSQL • Wasm • Rust • Python • C++ • LangChain • OpenAI**

Quantum Dynamics (QDX) is a leading biotech startup specializing in quantum computational chemistry. At QDX, I prototyped complex UX flows to support usability research and lay the groundwork for a foundational software stack.

- **Enhanced the usability of high-performance simulations** and ML-driven processes (**0 to 1**) by leading the design and prototyping of advanced UX flows using React, TypeScript, Rust, Python, and GraphQL.
- **Streamlined complex algorithmic tasks** by building **LLM-driven apps** that leveraged cutting-edge infrastructure, integrating APIs like **LangChain** and **OpenAI**.

- **Improved responsiveness and reduced overhead** for critical workflows by developing performance-enhancing modules using **WebAssembly (Wasm) in Rust and C++**.

## Atomix Design | Tech Lead

June 2020 – September 2023

Scrum • Jira • AWS • Google Cloud • Kubernetes • JavaScript • TypeScript • Node.js • React • React Native • Redux • PHP • Laravel • Auth0 • Apollo • GraphQL • Firestore • MySQL

For Atomix, I built a highly secure and scalable member platform for a major Australian client, utilizing GraphQL, TypeScript, Node.js, Apollo, React, PHP/Laravel and Auth0, integrated through microservices on Google Cloud.

- **Boosted client onboarding rates by over 33% within six months**, driving proportional gains in revenue and visibility through a streamlined onboarding process and optimized client touchpoints.
- **Increased adoption and sustained engagement for over 80,000 members across Australia** by deploying a scalable solution built on robust architectural principles and best practices.

## Turing (Palo Alto) | Engineering Manager

September 2019 – March 2020

Scrum • Jira • ELK • ElasticSearch • Google Cloud • Jenkins • JavaScript • TypeScript • Node.js • React • Redux • NestJS • MySQL

Premier remote talent marketplace catering to Silicon Valley startups and leading companies in the machine learning sector. At Turing, I held dual responsibilities, as a founding member of Vertical Engineering Leadership and Engineering Manager, overseeing critical engineering operations, candidate vetting, customer engagement, and best practices.

- **Contributed to steering the company toward profitability (0 to 1)** by co-founding the Vertical Engineering and Vetting teams.
- **Strengthened system reliability and scalability** with robust architecture by overseeing engineering for email marketing and AI-driven matching solutions.
- **Accelerated engagement growth** by enabling the delivery of **250,000 emails** through the technical implementation of candidate acquisition efforts.
- **Supported the company's \$46 million Series B funding** by ensuring technical readiness and scalability.
- **Helped drive the company's Unicorn growth** by establishing scalable practices.

## Thought&Function (London) | Full-Stack Developer

November 2018 – April 2019

Scrum • JavaScript • Java • React • Redux • Cordova

I worked with T&F to develop solutions for desktop and mobile using React with JavaScript, as well as Java for Android, to customize app plugins deployed through Cordova.

## Freelance | Software Engineer

February 2008 – December 2024

- **Delivered high-performance solutions for 15+ years**, achieving a **100% success score on Upwork** through a sustained focus on quality and efficiency.
- **Maximized client satisfaction, as measured by a top-1% ranking** on Upwork and similar scores across freelancing platforms and competitive programming websites, by reliably delivering high-quality software products.

## Education

- **UIUC Gies College of Business** • currently pursuing MSM Online
- **HEIG-VD Engineering School (Switzerland)** • HES Software Engineering

## Professional Certifications

- **MIT** - Data Science and Machine Learning • 2023
- **Google Cloud** - Professional Data Engineer / Cloud Architect • 2022 - 2023
- **AWS** - SysOps Administrator / Developer / Solutions Architect Associate • 2019 - 2020
- **The Linux Foundation** - Node.js Services Developer / Application Developer • 2019 - 2020
- **Oracle** - Certified Associate, Java SE 8 Programmer • 2018
- **ITIL** - HDI Customer Support Specialist • ITIL/ITSM Foundations

## Research

- **February 2009 – June 2009, Columbia University** - Java • C++ • JNI • SWT  
Multimedia utility for tsunami research.
- **February 2008 – February 2009, EPFL** - Java • C# • C++ • Direct3D • DirectShow • HLSL • XNA  
Interactive solutions for virtual training and medical imaging.