

MAURO COLELLA

Senior Full-Stack Developer

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Currently relocating to Canada under the Global Talent Stream

 <https://www.linkedin.com/in/mauro-colella>

Senior Full-Stack Developer with over 15 years of experience building high-performance solutions across cloud and data engineering and machine learning domains. Proven track record of delivering scalable software solutions and boosting business growth. Fluent in **English, French, and Italian**.

Technical Expertise

Systems and Design

Cloud Architecture • Agile • Scrum • Data Engineering • Data Science (MIT) • Machine Learning • MLOps • AWS • Google Cloud

Languages and Frameworks

JavaScript • TypeScript • Node.js • React • Next.js • GraphQL • Python • Java • Rust • C++ • Wasm • OpenAI • LangChain • Git

Professional Experience

QDX Technologies

October 2023 – Present

Full-Stack Developer

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 startup specializing in computational chemistry, with operations based in Singapore and Australia. Under the leadership of Giuseppe M.J. Barca, the research team holds several world records in high-performance computing.

- **Designed, developed, and maintained advanced software products** to enable the utilization of high-performance computing solutions, using React, TypeScript, Rust and GraphQL.
- **Built multiple apps** that leveraged the team's cutting-edge infrastructure, addressing complex algorithmic challenges and integrating APIs like **LangChain and OpenAI**.
- **Developed and integrated modules using WebAssembly (Wasm)** in Rust and C++ to enhance performance and functionality.

Atomix Design

June 2020 – September 2023

Tech Lead

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

- **Developed a highly scalable and secure member platform** using Node.js, React, Next.js, TypeScript and GraphQL for a major Australian client. The project included payment integration, third-party APIs, cloud architecture and data engineering. Security was achieved to a high standard by leveraging third-party authentication and cloud-centric strategies, specifically Auth0, KMS, Secret Manager and Cloud Armor.

Achievements

- **Boosted client onboarding rates by over 33%** within six months, with a similar increase in revenue and visibility.
- **Deployed the solution to over 80,000 members across Australia**, which remains active and maintained.

Turing.com (Palo Alto)

September 2019 – March 2020

Engineering Manager

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

Participated in the creation and implementation of internal products and guidelines during Series B funding, supporting customer and candidate acquisition. Drove efforts to implement complex interaction flows on central products of the company, involving a variety of data sources and actors.

Achievements

- **Founding member** of the Vertical Engineering and Vetting teams.
- **Managed engineering** for proprietary email marketing and matching products.
- **Led efforts** to acquire thousands of candidates, sending over 250,000 emails.
- **Played a key role in doubling the candidate base** within three months.
- Supported growth efforts during a Series B round, contributing to additional funding and company expansion.
- The company achieved Unicorn status after my departure.

Freelance

February 2008 – Present

Software Engineer

- 15+ years designing and delivering high-performance solutions across various technologies, both on-site and via freelancing platforms.
- Achieved a **100% success score** for projects completed on Upwork.
- Ranked in the **top 1% of software engineers** on Upwork based on internal vetting.
- Actively vetted and recognized on other freelancing platforms and competitive programming websites

bi, Blue-Infinity (Geneva)

June 2005 – February 2008

IT Consultant

Maintained hardware and software for fast-paced government organizations and high-revenue companies (Fortune 500/50) operating within the ITIL framework. Client companies included **DHL**, **The UNICC (United Nations)**, **Philip Morris International**, **EFG Money Bank** and **Dialogue Logique SA**.

Earlier

- **June 2001 - June 2005**, Cablecom Sarl | DBA
- **November 2000 - May 2001**, Colombus S.A (IT Services Company) | Junior trainer

Research

February 2009 – June 2009, Columbia University - Java • C++ • JNI • SWT

Developed a multimedia utility for tsunami research and simulation.

February 2008 – February 2009, EPFL

Java • C# • C++ (unmanaged) • Direct3D • DirectShow • HLSL • XNA

Created interactive solutions for virtual training and medical imaging.

Education

HEIG-VD Engineering School (Switzerland) • HES Software Engineering

Training 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
- **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**