



Jorge Miralles Filippini

Software Engineer | MSc. Computational Mechanics
Quantitative Finance (in progress)

About me

Quantitative-minded software engineer with a strong foundation in applied mathematics and computational mechanics. Experienced in fullstack development, control systems, and simulation environments, including R&D in reinforcement learning for robotics. Currently pursuing a Master's in Quantitative Finance with focus on financial econometrics, derivatives, and risk modeling. Strong analytical mindset with over 5 years of combined academic and professional experience in Germany, and known for combining technical depth with strong communication skills and a global, people-first mindset.

Experience

Software Engineer / Consultant

2023 - Present | ITQ GmbH, Munich, Germany

- Contributed to a **fullstack industrial automation** system using **C#** and **.NET8**, focusing on control logic, hardware interfacing, and backend development within a **microservices** and **OOP** architecture.
- Developed a fullstack **HMI application** for an automotive production unit using **Angular**, **Node.js**, **PostgreSQL**, **InfluxDB**, **MQTT**, and **Grafana**.
- Conducted research on **Reinforcement Learning** applications in robotics, developing custom simulation environments and control strategies.

Junior Software Engineer

2022 - 2023 | ITQ GmbH, Munich Germany

- Focused on R&D for novel **Reinforcement Learning** AI agents in simulation environments using **Python**.

C++ Tutor

2021 - 2022 | TUM Chair of Computational Mechanics, Munich, Germany

- Taught **Object-Oriented C++** to master's students.
- Provided guidance and feedback on programming assignments and projects.

Education

Master in Quantitative Finance

UNED - Madrid, Spain (Remote) | 2024 - Present

- Focus on **financial econometrics**, **financial mathematics**, **quantitative modeling** and **computational methods** applied to asset pricing and risk management.

MSc. in Computational Mechanics

Graduated with Merit
Technical University of Munich (TUM), Germany | 2020 - 2022

- Focus on **Applied Mathematics**, **Numerical Methods**, **Stochastic Modeling**, and **High-Performance Computing** for Simulation and Risk Analysis.
- Master's Thesis: *Reinforcement Learning in Simulated Environments for Robot Control*.

BEng. in Mechanical Engineering

Carlos III University of Madrid, Spain | 2016 - 2020

- Bilingual Bachelor: Spanish + English
- ERASMUS: TU Dresden (2019 - 2020).

+34 648975590

j.miralles@hotmail.es

Munich, Germany

Nationality: Swiss/ Spanish

www.linkedin.com/in/jomifi

www.mfjorge.de

Languages

Spanish - Native

English - Fluent

German - Proficient

Skills

Quantitative & Analytical Skills

- Quantitative Finance, Time Series, Financial Econometrics, Derivatives, Risk Modeling

Software Engineering

- Python, C#, .NET, TypeScript, OOP, Test-Driven Development

Data & Web Technologies

- SQL, PostgreSQL, InfluxDB, MongoDB, REST APIs, Angular, React

Tools & Practices

- Git, Docker, Agile, Unit Testing

Other

- Basic knowledge of Blockchain and DeFi (in progress)