

Jorge Miralles Filippini

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ABOUT ME

Quantitative analyst with a strong background in applied mathematics and finance. Over 3 years of experience as a software developer, during which I have translated quantitative models into practical solutions. Known for combining technical depth with clear communication and an open, team-oriented approach.

WORK EXPERIENCE

Software Engineer, ITQ GmbH Munich, Germany Jan. 2022 – Present

- Led R&D on reinforcement learning in Python, creating simulation frameworks for decision-making under uncertainty.
- Built client-facing applications (C#/.NET, Angular, NodeJS, PostgreSQL, Grafana) with real-time data pipelines, making complex models accessible to end users.

C++ Tutor, TUM Chair of Computational Mechanics Munich, Germany Oct. 2021 – Apr. 2022

- Taught object-oriented C++ to master's students, guiding projects in simulation and numerical methods.

EDUCATION

Master in Quantitative Finance, UNED, Madrid (Remote) Dec. 2024 – Sep. 2025

- Focus on financial econometrics, quantitative modelling, and computational methods for asset pricing and risk management.
- Built Python models for risk analysis (VaR, GARCH, EVT) and derivatives pricing (Black-Scholes, binomial trees, Monte Carlo).

MSc in Computational Mechanics, Technical University of Munich (TUM) Oct. 2020 – Dec. 2022

- Focus on applied mathematics, numerical methods, stochastic modelling, and HPC 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 Sep. 2016 – Jun. 2020

- Bilingual program (Spanish/English) with Erasmus exchange at TU Dresden, Germany.

SKILLS

Quantitative: VaR, GARCH, EVT, derivatives pricing, stochastic processes, Monte Carlo, financial econometrics, machine learning.

Programming: Python (NumPy, pandas, scikit-learn, Matplotlib), C#, C++, SQL, .NET, Angular; Git, Docker, CI/CD.

LANGUAGES

Spanish (Native), English (Fluent), German (Fluent; daily professional use).

HOBBIES

CrossFit, kitesurfing, hiking, skiing, reading, history, economics