



# Jorge Miralles Filippini

MSc. Computational Mechanics | Software Engineer

## About me

I am a skilled software engineer with expertise in full-stack development and a master's degree in computational mechanics. I have successfully built scalable web applications using Angular, Node.js, PostgreSQL, and InfluxDB, and contributed to industrial automation projects, including HMI development and AI-driven robotics. My background includes working in agile teams, delivering end-to-end solutions, and conducting R&D in reinforcement learning for robotics. I am now eager to apply my technical knowledge to fintech, web3 technologies, and financial domains.

## Experience

### Software Engineer

2023 - Present | ITQ GmbH, Munich, Germany

- Fullstack development of an HMI for a production unit in the automotive industry.
  - TechStack:
    - Angular, NodeJs, PostgreSQL, InfluxDB, MQTT, Grafana.
- Developed PLC software for a fully automated production station using TwinCAT.
- Conducted R&D in Reinforcement Learning applications for robotics.

### Junior Software Engineer

2022 - 2023 | ITQ GmbH, Munich Germany

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

### 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.

### Mechanical Engineering Experience

2018 - 2020 | Madrid, Spain

- Performed FEM simulations and dynamic multibody analysis for a racing motorcycle
- Designed and simulated CubeSats (satellites) as part of the engineering team.

## Education

### MSc. in Computational Mechanics

Technical University Munich, Germany | 2020 - 2022

- Focus on Applied Mathematics, Numerical Methods, Software Development and Computational Modeling & Simulation.

### BEng. in Mechanical Engineering

Carlos III University of Madrid, Spain | 2016 - 2020

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



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Nationality: Spanish / Swiss



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[www.mfjorge.de](https://www.mfjorge.de)

## Languages

**Spanish:** Native

**English:** Fluent

**German:** Proficient

## Skills

- Front-End Development:
  - Angular, React, HTML, CSS.
- Back-End Development:
  - NodeJS, Express, MongoDB, PostgreSQL, InfluxDB
- Programming Languages:
  - TypeScript, JavaScript, Python, C#, C++
- Version Control & Development Practices:
  - Git, Scrum, Agile methodologies
- PLC Software Development:
  - TwinCAT3