MARCO MÜLLNER

Software Engineering

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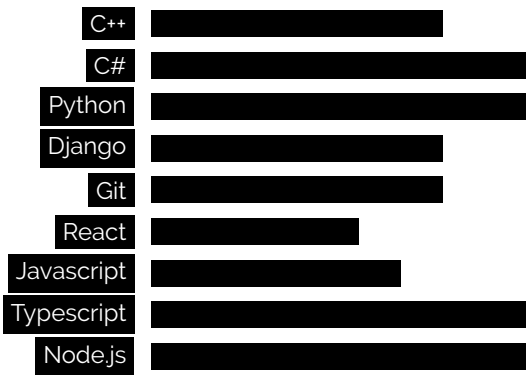
WHO AM I?

Hey there!
I'm Marco, a versatile software engineer/engineering manager with a knack for tackling complex technical challenges across diverse fields. My journey has taken me from developing low-level embedded systems to designing intuitive UIs and building full-stack web applications.
What drives me is finding the right solution for each unique problem, regardless of technology preferences or trends. I'm naturally curious and continuously exploring emerging technologies to stay ahead of the curve and bring innovative approaches to my work.



EXPERIENCE

2023-2025 — **Engineering Manager** — **AMPEERS ENERGY GmbH**
Built and led three engineering teams (10+ engineers) creating solutions for data exploration, connectivity, and infrastructure. Implemented organizational and coding standards that doubled team output while improving quality. Led multiple architecture initiatives while mentoring junior developers into senior roles.
`Node / React / Kanban / Fastify / GraphQL / Leadership / Kubernetes / DevOps / ArgoCD`

2022 — **Software/Data Engineer** — **AMPEERS ENERGY GmbH**
Developed backend systems for an energy management platform, including a data hub for exploration and processing. Applied domain-driven design principles to create maintainable, scalable solutions.
`Python / FastAPI / DDD / Git / CI / CD`

2023-2024 — **Software Engineer** — **MED-EL GmbH (via Ferchau)**
Engineered and designed a SCADA system for factory automation, improving manufacturing efficiency and quality control processes.
`C# / Visual Studio / SCADA`

2022-2023 — **Software Engineer & Consultant** — **Innio GmbH (via Ferchau)**
Developed an HMI for gas turbines and provided consulting on version control systems and CI/CD implementation, enhancing development workflows and software reliability.
`C# / Git / CI / CD`

2022-2025 — **Software Engineer** — **Innomotec GmbH**
Created a comprehensive library for industrial machinery, featuring frontend development (Avalonia), database integration, hardware interfacing, and computer vision capabilities.
`C# / EFCore / WPF / C / C++ / SQL / Postgres`

2021 — **Software Engineer** — **BE Semiconductor AG**
Advanced the development of control software for high-precision semiconductor manufacturing equipment, focusing on reliability and precision.
`C / C++ / Qt / Linux`

2021 — **Software Engineer** — **PROAUT TECHNOLOGY GmbH**
Developed a foundation library for EtherCAT communication and ISEL robot control, enabling seamless integration and operation of industrial automation systems.
`C / C++ / Qt / Linux`

2021 **Software Engineer** **Bachmann electronic GmbH (via Innomotec)**
Built a robot/laser marking system for IO modules, incorporating image recognition, hardware interfaces, and database management for production tracking.
`C# / EFCore / WPF / C / C++ / SQL / Postgres`

2020 **Software Engineer** **Innio GmbH (via Innomotec)**
Created a laser marking system for steel tubes, integrating hardware control with software interfaces for efficient production operations.
`C# / EFCore / WPF / C / C++ / Python`

2020 **Software Engineer** **AL-KO Kober SE (via Innomotec)**
Developed control software for a semi-automatic riveting system, bridging hardware components with user interfaces for streamlined manufacturing.
`C# / EFCore / WPF / C / C++`

2020 **Software Engineer** **Innomotec GmbH**
Built software for a laser marking system targeting ceramic components, with focus on precision control and integration with manufacturing processes.
`C# / EFCore / WPF / C / C++`

2016-2019 **Data Scientist** **University of Innsbruck, Stellar Astrophysics**
Collaborated on analyzing stellar objects using satellite time-series data. Applied machine learning and statistical techniques to advance astrophysical research.
`Python / Numpy / Pandas / Matplotlib / Scipy / Scikit / TensorFlow`

2013-2019 **Software Engineer** **PROAUT TECHNOLOGY GmbH/Semikron GmbH**
Advanced software development for precision semiconductor machinery, with particular focus on implementing computer vision solutions for quality control and process monitoring.
`C / C++ / Qt / Linux`

2013-2022 **Web Developer** **Various Clients**
Delivered custom web solutions for diverse clients, handling both backend and frontend development based on project requirements and business needs.
`Python / Django / Node / Vue.js / Javascript`

2012-2013 **BI Engineer** **Racon West (Raiffeisen Bank)**
Designed and maintained a data warehouse system for banking transactions, enabling comprehensive analysis and reporting of financial operations.
`SQL / BI / Windows Server`

2010-2012 **Software Engineer** **Ricmar GmbH**
Developed and maintained software for industrial machinery in the electronics sector. Work spanned from embedded systems programming to UI design and multi-threaded application development. Contributed to feasibility studies and project management tasks.
`C / C++ / Qt / Linux`

EDUCATION

2004-2009 **HTL Innsbruck**
I visited a HTL during the years of 2004-2009, with a focus on IT and electronics

2013-2020 **Studying physics at the University of Innsbruck**
On the side of starting my own business in 2013, i also studied physics, with a focus on astrophysics, in particular Asteroseismology of young stellar objects. As a part of this, i put heavy focus on statistical techniques and machine learning, to analyze large amounts of data. This included classical data science tasks, which were performed using Python and various libraries (Numpy, Pandas, Matplotlib, scikit, ...)

PUBLICATIONS

Zwintz, K., Reese, D. R., Neiner, C., Pigulski, A., Kuschnig, R., **Müllner, M.**, Zieba, S., Abe, L., Guillot, T., Handler, G., Kenworthy, M. , Stuik, R., Moffat, A. F. J., Popowicz, A., Rucinski, S. M., Wade, G. A., Weiss, W. W., Bailey, J. I., Crawford, S., Ireland, M., Lomberg, B., Mamajek, E. E., Mellon, S. N., Talens, G. J. *Revisiting the pulsational characteristics of the exoplanet host star β Pictoris*, A&A, pages A28. Volume 627, July 2019

Müllner, M. and Zwintz, K., *A pre-main sequence variability classifier for TESS*. In Neiner, C. ,Weiss, W. W. ,Baade, D. ,Griffin, R. E. ,Lovekin, C. C. ,Moffat, A. F. J., *Stars and their Variability Observed from Space*, pages 27-28, January 2020.

Zwintz, K. ,Kuschnig, R. ,Arnold, C. ,Brüser, F. ,Dornacher, M. J. ,Gössl, S. ,Ivanov, A. ,Mayerl, M, **Müllner, M.** ,Panny, S. ,Stanciu, A. M. ,Steindl, T. ,Thaler, A. ,Weßmayer, D. ,Zieba, S., *Science with BRITE-Constellation at the University of Innsbruck*. In Neiner, C. ,Weiss, W. W. ,Baade, D. ,Griffin, R. E. ,Lovekin, C. C. ,Moffat, A. F. J., *Stars and their Variability Observed from Space*, pages 119-120, January 2020.

Zwintz, K. ,Neiner, C. ,Kochukhov, O. ,Ryabchikova, T. ,Pigulski, A. ,**Müllner, M.** ,Steindl, T. ,Kuschnig, R. ,Handler, G. ,Moffat, A. F. J. ,Pablo, H. ,Popowicz, A. ,Wade, G. A., *β Cas: The first δ Scuti star with a dynamo magnetic field*$\star$,643:A110, November 2020.

Müllner, M.,Zwintz, K., Corsaro, E., Steindl, T., Potravnov, I., Guenther, E. W., Kniazev, A., Gvaramadze, V., *Searching for solar-like oscillations in pre-main sequence stars using* `APOLLO`, to be published 2021

LANGUAGES

German - native
English - fluent

OUTSIDE WORK

When I'm not coding, you'll find me carving through fresh powder on ski slopes and exploring mountain trails. I'm also an avid reader and enjoy working on personal coding projects where I experiment with emerging technologies.