LAURIN STEINER

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PROFILE

Physics graduate student at the Technical University of Munich with strong background in quantitative modeling, programming, and complex problem solving. Research experience in quantum technologies and founder of two technology ventures. Experienced in simulation, data analysis, and technology strategy.

WORK EXPERIENCE

Co-Founder & CEO – **Quantum Enhanced Metal Detection** 2025 - present

- Developing NV-center diamond sensors for improved UXO detection
- Currently selected for TUM XPLORE Freeride
- Leading strategy, technology roadmap and fundraising
- 40+ customer interviews, built market model and analysis and pricing model

Working Student at **Walther Schottky Institute** 2020 - 2024

- Fabrication of 50+ semiconductor samples in a cleanroom for different experiments
- Developed 5+ PCBs for transport measurements, optical measurements and RF experiments
- Designed and simulated semiconductor exciton trap structures (0D/1D) using COMSOL and Python
- Designed and simulated coplanar waveguides and RF structures using ANSYS HFSS

Co-Founder & CTO - **Cryogenius** 2021 - 2022

- Technology startup project in cooperation with the Walther Schottky Institute and the TUM Quantum Venture Labs
- Developing a new mid-range opto-magnetic cryostat for research in 2D Materials
- Responsible for the technological development

Ultra-Reflex GmbH – Web development and Digital Transformation 2019 - 2021

- Developed guided selling tool improving customer product selection
- Analyzed digitalization opportunities in production processes
- Supported data collection and automation initiatives

Founder - **Steiner Marketing Solutions** 2020 - present

- Founded and operate an e-commerce business financing my studies
- Built digital marketing and sales infrastructure
- Managed product development, operations, and customer acquisition

Internship **Erdrich Umformtechnik GmbH** 2016

- Internship in manufacturing engineering at automotive supplier

EDUCATION

Technische Universität München (TUM), Ludwig-Maximilian-Universität (LMU): 2023 – 2026,
M.Sc. Quantum Science and Technology

- Masterthesis – Coherent transduction from microwave photons to optical photons using quantum dot molecules, at WSI, Grade 1.6

Technische Universität München (TUM): B.Sc. Physics 2019 – 2023,

- Bachelor thesis: Evaluation of new flux-grown hBN for use in 2D electronic devices, at WSI, Grade 1.3
- Focus on Applied and Engineered Physics

Technische Universität München (TUM): B.Sc. Informatics 2019 – 2020,

- Praktikum Grundlagen der Programmierung (JAVA), introduction to programming

Gymnasium Achern A levels (Abitur) 2012 – 2019,

- Majors: Physics and Economics, awarded for outstanding potential in physics

ENTREPRENEURSHIP / LEADERSHIP

Programs completed at **TUM**, **UnternehmerTUM** and **Academy for Innovators**

- Business plan Advanced Seminar
- Tech Challenge
- Think.Make.Start
- Quantum Entrepreneurship Laboratory
- Selected for **Quantum Fellowship Program** (top 10 students/year)
- Quantum Idea Lab

PUBLICATIONS & PRESENTATIONS

Alain Dijkstra, Amine Ben Mhenni, Dinh Van Tuan, Elif Çetiner, Muriel Schur-Wilkens, Junghwan Kim, Laurin Steiner, Kenji Watanabe, Takashi Taniguchi, Matteo Barbone, Nathan P. Wilson, Hanan Dery & Jonathan J. Finley. Ten-valley excitonic complexes in charge-tunable monolayer WSe_2. Nat Commun 16, 9743 (2025). https://doi.org/10.1038/s41467-025-65731-x

Poster: "Quantum Dot Molecules as a Mediator for Microwave to Optical Transduction", Mauterndorf Winterschool 2025, MCQST Conference 2025

ADDITIONAL ACTIVITIES

Venture Lab Summer School

- One week course on how to build a start-up out of research

Tum.ai Makeathon

- Developing an AI solution for ESA, challenge winner

Start Munich AI Hackathon

- Building an AI tool for personalized Ads

HarvardX – R Programming

SKILLS & INTERESTS

Languages:	German (native), English (fluent C1 – C2), French (B2), Italian (B1)
Programming:	Python, R, Java, Javascript, HTML, CSS, SQL, qiskit
Scientific Software:	Mathematica, Matlab, LaTex, COMSOL, ANSYS HFSS
Engineering and Design:	Fusion360, Altium Designer, Solid Works
Other:	MS Office
Societies:	Deutsche Physikalische Gesellschaft (DPG), Verein Deutscher Ingenieure (VDI, Technical Committee for Quantum Technologies)
Interests:	Quantum Physics, Economics, Entrepreneurship, Football, Technologies, Personal Development, Meditation and Sports