

DANIEL NOAH DIETRICH

+49 176 53114430 | danielnoahdietrich@gmail.com | LinkedIn | danieldietrich.tech

SUMMARY

M.Sc. candidate in Physics and Management at Ulm University, with experience developing scientific software in Python and delivering software projects for clients.

EDUCATION

M.Sc. Physics and Management <i>Ulm University — expected grade 1.3 (German scale)</i> <i>Relevant coursework:</i> Econophysics, Matter Wave Optics, Mathematics of Games, Founder's Garage (entrepreneurship).	Oct 2024 – Dec 2026 (expected)
B.Sc. Physics <i>Ulm University</i>	Oct 2020 – Oct 2024

EXPERIENCE

Freelance Software Consultant <i>Selected projects alongside university studies — Upwork and direct clients</i> <ul style="list-style-type: none">Handled client acquisition and project coordination for Upwork projects, working with a development partner on implementation.Developed a web app for filing car insurance claims with AI-powered damage assessment, damage selection for 6 vehicle body styles and privacy by design.Built a live e-commerce sales dashboard and a candidate–employer matching platform.	Aug 2022 – Aug 2026
Private Tutor — Physics & Mathematics <i>Secondary school and university level</i> <ul style="list-style-type: none">Tutored eight students, all of whom achieved their stated learning goals.	Mar 2021 – May 2026

SELECTED PROJECTS

Master's Thesis — Quantum Optimal Control <i>Institute for Complex Quantum Systems, Ulm University</i> <ul style="list-style-type: none">Developed a Python framework for quantum optimal control, implementing GRAPE and Parallel Tempering for multi-qubit systems.Compared GRAPE, standard Parallel Tempering and a variant with varying cost weights; validated implementations against analytical solutions.	Expected Dec 2026
Technical & Market Analysis — Quantum Sensing <i>Physical and economic perspectives on the emerging industry</i> <ul style="list-style-type: none">Analyzed quantum-sensor operating principles alongside market size, growth and competition.Presented findings in a two-hour lecture to a university audience.	Feb 2025
Bachelor's Thesis — TIRF Microscope for Single-Molecule FRET <i>Institute of Biophysics, Ulm University</i> <ul style="list-style-type: none">Redesigned the detection beam path, integrated hardware with custom CAD/3D-printed mounts, and adapted the institute's analysis software.Increased the average number of usable FRET events per recording from 9 to 24, making the microscope usable for research at the institute.	Oct 2024

SKILLS & LANGUAGES

Programming:	Python (NumPy, SciPy), TypeScript, HTML/CSS, MATLAB
Tools:	Git, LaTeX, Microsoft Office (Excel, PowerPoint), AutoCAD
Languages:	German (native), English (fluent)