

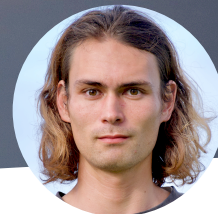
ALEXANDER TAKA EDELMANN

Engineering Physics

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INTRODUCTION

I am committed to fostering a positive environment for both myself and those around me. Driven by a passion for continuous learning and personal growth, I have spent half of my twenties living and working in three diverse countries outside of Europe. This experience has enriched my cultural understanding and enabled me to become fluent in English, and Japanese. As an individual passionate about physics, I also take great pleasure in surfing, skateboarding, photography and occasionally playing the piano and guitar. My curiosity extends to spending time at my computer, whether I am diving into textbooks or programming. For more insights into my journey and interests, please visit my [website](#).

EXPERIENCE

Full Stack Development

Various independent/own projects

2021 – 2024 (on and off) my PC

- Acquiring comprehensive back and front-end web development skills (Js, php, mysql, html, CSS) for the development of elaborate projects such as booking system, log-in-system and websites from scratch
- Authentic designing using a combination of own svg and CSS implementations

Software Development (Student Part-Time Job)

Toptica AG

Oct 2020 Munich

- Coding Python-based testing routines for a wide range of laser functions using pytest

Research

Infineon Technologies AG

Electromagnetic Compatibility Division

Feb 2019 – Mar 2020 Munich

(Thesis and other documents on my website)

Research as part of my Bachelor's Thesis

- Investigation of substrate impedance properties using FEM simulations and python based data analysis
- Evaluation of substrate impedance extraction tools for circuit simulators

Research as part of an internship

- Coding routines in Python which perform de-embedding and extraction of parasitic inductances, capacitances and resistances of S-parameters of different one, two and four port networks (mostly transmission lines)
- Adjustment of methodology by comparing TITAN, Cadence Spectre (SPICE class circuit simulators) simulation results with FEM-based simulation results

Tutor/Student Assistant

Munich University of Applied Sciences

2017/18 Munich

- Solving one and two dimensional wave equations for waves travelling through different setups using Python and the finite differences method
- Conducting tutoring seminars (Physics, Electrical engineering) and marking voluntary homework assignments for first year students

VOLUNTARY SERVICE

Munich Summer-School of Ap. Sc.

Jul – Aug 2018/2019
Munich Uni. of Ap. Sc.

Mentor - Giving summer-school students from abroad a close up look at Bavarian culture

Welcome Service

Jul – Aug 2018/2019
Munich Uni. of Ap. Sc.

Mentor - Helping out exchange students throughout their semester in Munich

WORDS I LIVE BY

"Open Source is my religion"

COMPUTER SKILLS

Python C++ Javascript (NodeJS, React)
HTML CSS PHP MySQL
Bash (Unix Shell) git MATLAB SPICE
ANSYS HFSS Comsol LabVIEW LaTeX C#
Mathematica Inkscape (svg) Blender

LANGUAGES

German ●●●●●

English ●●●●●

Japanese ●●●●●

French ●●●●●

EDUCATION

M.Sc. Micro- and Nanotechnology

Munich University of Applied Sciences

Mar 2024 – ongoing Munich

3 semester program (90 ECTS), current avg. grade: 1.4

B.Sc. Engineering Physics

Munich University of Applied Sciences

Oct 2020 Munich

7 semester program (210 ECTS), avg. grade: 1.4