Eike Himstedt

Email: ehimstedt@ethz.ch
Mobile: +41 78 2515183
LinkedIn linkedin.com/eike-himstedt
Address: Witikonerstrasse 399, 8053 Zürich

PROFESSIONAL SUMMARY

Electrical Engineering student with extensive experience in semiconductor research, machine learning, and next-generation communications. Driven by curiosity and a passion for impactful solutions, I focus on integrating technologies effectively within their operating environments. International moves—from India to Duisburg to Zürich—have honed my resilience, adaptability, and ability to build strong networks.

EDUCATION

ETH Zurich **2022–2024**
MSc Information Technology and Electrical Engineering
- Major: Electronics and Photonics
- Thesis: Analysis of Crosstalk Mitigation Techniques for Interfacial Graphene Photogating Devices (Grade: 6)

University of Duisburg-Essen **2018–2022**
BSc Electrical Engineering and Information Technology
- Graduated with a GPA of 1.2; Thesis: "Electrical retrofitting of the drive system and safety functions of a CNC vertical lathe" (Grade: 1.0)
- Focus on Solid State Electronics and Nanotechnologies with practical experience via Siemens' co-op program
- Served as course spokesperson, representing student interests and coordinating events

Siemens **2018–2021**
Electronics Technician for Machines and Drive Technology
- Achieved a final grade of 1 and awarded the Best Apprentice Award for technical excellence

Robert-Bosch-Gesamtschule **2015–2017**
A levels (Abitur)
- Graduated with a GPA of 1.4 and received the Graduate Award in Chemistry

EXPERIENCE AND RESEARCH

ETH - IEF **Jan 2025–ongoing**
Research Assitant
- Continuing research on Graphene Photodetectors. Developing the concept, chip design, and fabrication for multi-pixel arrays of graphene phototransistors; aims to innovate gate-defined stop channels for high-sensitivity applications under Prof. Leuthold.

ETH - PBL **Sep 2023—Jul 2024**
Teaching Assistant: Machine Learning on Microcontroller
- Guided students in developing machine learning solutions tailored to microcontroller applications.

ETH - Neuroinformatics Lab **Feb 2023–Jul 2023**

Semester Project: Neural Networks on FPGA for MPC Approximation

- Developed a neural network model on FPGA to approximate model predictive control (MPC) functions, supervised by Prof. Tobi Delbruck and Marcin Paluch.

ETH - Project Based Learning **Feb 2023–May 2023**

Course Project: Standalone Sign-Language Spelling System

- Engineered a gesture recognition system on the Maxim78000 FTHR board to translate hand gestures into text with 95% accuracy.
- Supervised by Michele Magno, PhD, and Cristi Cioflan, PhD candidate.

ETH - PMS **Oct 2022–Jan 2023**

Course Project: EM Simulation of a Microstrip Antenna using MATLAB

- Implemented a 3D electromagnetic simulator in MATLAB focusing on patch antenna analysis using the Finite Element Method (FEM).
- Supervised by Jasmin Smajic, PhD.

Siemens Energy **2021–2022**

Electronics Technician for System Planning and Construction

- Led the installation and commissioning of drive systems by selecting and configuring frequency converters for diverse automation projects.
- Engineered electrical control cabinets and performed requirement analyses, component selection, schematic design, and cabinet assembly; retrofitted electrical systems and safety functions to achieve CE compliance.
- Mentored new apprentices in specialized tasks and best practices.

University of Duisburg Essen **Jun 2021–Dec 2021**

Semester Project: Components for High Frequency Electronics

- Refined photolithography processes to enable on-chip patch-antenna development for THz-radiation coupling applications.
- Gained cleanroom experience in photolithography, sputtering, optical microscopy, Dektak, and SEM.
- Supervised by Prof. Nils Weimann and Robin Kress, PhD candidate.

University of Duisburg Essen **Oct 2019–Mar 2020**

Teaching Assistant: Electric and Magnetic Fields (Prof. Daniel Erni)

- Assisted in teaching the course and supporting excercise sessions.

COMMUNITY & LEADERSHIP

IDEA League **Oct 2023–May 2024**

Challenge Program: Cultivating leadership skills at the intersection of technology and societal impact

- Developed and enhanced leadership capabilities through technology–society focused initiatives.

Accenture DACH **Sep 2023–Dec 2023**

Engineering Student Program: Mentoring and Case Study Program

- Collaborated on future mobility solutions for the global south, developing actionable insights in a case study setting.
- Participated in workshops and keynote sessions focused on the "Future of Mobility."

Indian Institute of Youth Welfare **Sep 2017–Apr 2018**

Volunteer Service in Sustainable Rural Development

- Authored grant proposals and reports; led public awareness campaigns and fundraising efforts targeting waste management and water conservation.

HONORS, FELLOWSHIPS & AWARDS

- Spresense Developer Contest, 2nd Place (Sony) **Sep 2024**
- Fellow, Friedrich Ebert Foundation **2020–2024**
- Award for Best Bachelor's Graduate, University of Duisburg Essen **2023**
- Best Apprentice Nationwide, EMA (German Chamber of Commerce and Industry) **2021**
- Promotion Award, Schauenburg-Foundation **2021**
- Nomination for Studienstiftung des deutschen Volkes **2020**
- Top Graduate Award in Chemistry, German Chemical Society (GDCh) **2017**

TECHNICAL SKILLS

- **Languages:** German (native), English (C1/C2), Spanish (B1), Latin (Latinum major)
- **Programming Languages:** Python, Matlab, C
- **Hardware Design and Simulation:** System Verilog, Cadence Innovus, Vivado, Questasim
- **Information** Dart, Flutterflow, Cloud Functions
- **Industry Tools:** EPLAN, PLC Programming