Eric RICHTER

Citizenship: Switzerland, Sweden

Address: Route de Founex 16 | 1296 Coppet | Switzerland

errichter@ethz.ch | +41 78 686 55 30 | **in** LinkedIn

EDUCATION

ETHZ, Swiss Federal Institute of Technology

Zürich, Switzerland

MSc in Mechanical Engineering. Major in robotics/control and management. GPA: 5.39 (max 6)

Sept. 2022 - Present

EPFL, Swiss Federal Institute of Technology

Lausanne, Switzerland

MSc in Micro- Engineering. Major in solar technologies. GPA: 5.30 (max 6). (discontinued)

Sept. 2021 - Aug. 2022

EPFL, Swiss Federal Institute of Technology

Lausanne, Switzerland

BSc in Micro- Engineering. **GPA:** 5.23 (max 6)

Sept. 2018 - June 2021

USJ, Saint-Joseph University of Beirut

Beirut, Lebanon

Off-Curriculum Studies

Sept. 2017 - Dec. 2017

WORKING EXPERIENCE

Sensirion

Stäfa, Switzerland

R&D Engineering Intern

Sept. 2023 - Present • Prototyping and proof of concept of a next generation high accuracy low cost humidity reference.

• Technical, and software support for multiple humidity and temperature related projects.

EPFL

Lausanne, Switzerland

Teaching Assistant in Mathematical Analysis

Feb. 2021 - Jul. 2021

Swiss Army

Switzerland

Intelligence Soldier in the Air Force

Feb. 2018 - May. 2018

EXTRACURRICULAR PROJECTS

ShARE's Leadership Program

EPFL - International

Consultant and Team Leader

Sept. 2020 - Nov. 2022

- Interim Vice-Presidence (2022): Planning and organization of the 2022 Autumn Semester.
- Analyst for a start-up in online shopping (2022): Second hand online clothing platforms.
- Analyst for a start-up in Luxury (2021): High-end tech-watches.
- Analyst for a start-up in Medical Devices (2021): AI enhanced stethoscope for lung disease diagnosis.
- Exercise analysis (2020): The potential for renewable energies in the Lebanese energy mix.

International Genetically Engineered Machine Competition (IGEM)

EPFL

Head Engineer and Laboratory Technician

Feb. 2021 - Nov. 2021

- Project: project selection, definition, literature review, and planning of experimental and technical tasks.
- Communication: stakeholder interviews, Sensitization of school children, production of a podcast (Spotify link here).
- Technical: design, prototyping, and testing of a raspberryPi controlled bioreactor for continuous treatment of water. Laboratory support for biological and chemical procedures and experiments.

ACADEMIC PROJECTS

Machine Learning Semester Project

ETHZ - UZH

Emerging Intelligent Substrates Group at the Institute for Neuro-Informatics (INI)

Mar. 2023 - Jul. 2023

• Discovery of a low-power neural architecture through evolutionary methods for solving the spiking Heidelberg digits (SHD) dataset.

Nano-Engineering Semester Project

EPFL

Micro-Systems Laboratory

Feb. 2021 - Jun. 2022

 Design, COMSOL simulation, and iterative improvement of superconducting electromagnetic resonators for high accuracy and highly parallel temperature measurements in cryostats for quantum computers.

Robotics Semester Project

EPFL

Mobile Robotics Lab as a part of the Hiveopolis Project

Sept. 2021 - Jan. 2022

• Design, fabrication and automation of a 1D measurement system for vibrational characterization of tweaked bee combs for human-bee communication.

TECHNICAL SKILLS

Software

- Programming Languages: Python, C/C++, Matlab, Arduino, SQL, VHDL, HTML/CSS, Javascript, C#, Java
- CAD: Autodesk Fusion 360, Catia V5
- FEM: COMSOL
- PCB design: LibrePCBVersion Control: Git

Research

• DOE: Design of Experiments

Laboratory Experience

• Clean room experience, Synbio laboratory experience, chemistry laboratory experience

Fast Prototyping

- 3D Printing / Additive manufacturing
- Laser Cutting
- Soldering, electrical testing
- Microcontroller programming

LEADERSHIP

Vice-Presidence for EPFL at ShARE's Leadership Programme

EPFL

• Planning and organizing the local association with respect to the University and business partners

Team Leader at ShARE's Leadership Programme

EPFL

• Training of the next generation of "do well do good" ShARE EPFL consultants

Event Organizer

ETHZ - EMC2

• Planning and organization of events for students in the Masters of energy systems and technologies program

LANGUAGES

English (Native), French (Native), German (B2-C1), Swedish (B1), interest in Levantine Arabic (A2), and Italian (A1)

Personal Interests

Sports: Skiing/Snowboarding, Bouldering, Tennis, Ice Hockey

Music: Formally trained as a pianist, informally playing any other instrument I can get my hands on

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