



Eric Carl Richter

20/08/1998

BSc Micro- Engineering EPFL
MSc Mechanical Engineering ETH

Contact

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Linkedin: [eric-richter-704567184](https://www.linkedin.com/in/eric-richter-704567184)

Roots

Switzerland: *Citizen*

Sweden (Father): *Citizen*

Lebanon (Mother)

Languages

English: *Native*

French: *Native*

German: *Fluent*

Swedish: *Conversational*

Programming Experience

Python

C++

C

Matlab

VHDL

Assembly

SQL

Modelling and Simulation

Fusion 360

Catia V5

COMSOL

Some Projects in Manufacturing, Management, and Sustainability

- 2022 **HILTI factory and warehouse mock yearly performance assessment**
Program: ETH MSc in Mechanical Engineering
Course: Production and Operations Management (POM)
POM, Lean, warehousing, production planning etc...
- 2021 **Manufacturing Systems and Supply chain Management aggregation, queuing, and AnyLogic mini-project.**
Program: EPFL MSc in Micro-Engineering
Course: Manufacturing and Supply Chain Dynamics
SCM, Anylogic
- 2021 **Reverse Engineering of a Bialetti Moka Express and manufacturing process analysis**
Program: EPFL BSc in Micro-Engineering
Course: Manufacturing technologies
Manufacturing Technologies, Reverse Engineering methodology

Some Projects in Software

- 2023 **Evolutionary Optimization of small world neuromorphic systems for low-power on-edge computation**
Program: ETH MSc in Mechanical Engineering
Course: Semester project at INI-UZH with prof. Melika Payvand
Neuromorphic computing, Machine Learning, electronics, python and C++
- 2022 **5 computer vision mini-projects**
Program: ETH MSc in Mechanical Engineering
Course: Image Analysis and Computer Vision
Image analysis and computer vision
- 2021 **Programming of a mobile robot (e-puck) in C for an odometry, camera and ToF based "go-fetch" game**
Program: EPFL BSc in Micro-Engineering
Course: Robotics and Embedded systems
Parallel processing of sensor data, version control (GIT)

Some Projects in Product design, CAD & Simulation

- 2022 **COMSOL Simulation of waveguide coupled superconducting EM resonators**
Program: EPFL MSc in Micro-Engineering
Course: Semester Project at LMIS1 with prof. Jurgen Brugger
Simulation
- 2021 **Design, CATIA V5 modelling, 3D printing and testing of a temperature and humidity sensor casing at EPFL Bachelor**
Program: EPFL BSc in Micro-Engineering
Course: Manufacturing Technologies DLL
CAD, Additive Manufacturing, Packaging
- 2020 **Design and prototyping of a flexure mechanism for a high precision kibble balance**
Program: EPFL BSc in Micro-Engineering
Course: Mechanism Conception II
CAD, Precision instruments, Flexure mechanisms
- 2019 **Design, CATIA V5 CAD modelling technical drawings of a manual mechanical paper-folding machine**
Program: EPFL BSc in Micro-Engineering
Course: Mechanical Construction II
CAD, technical drawing



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Some Projects in Embedded Systems Automation/Robotics

- 2022 **FPGA: implementation of a camera and LCD display**
MSP432: joystick control of a servo-motor
Program: EPFL MSc in Micro-Engineering
Course: Embedded Systems
C, VHDL, Quartus, low level software architecture
- 2021 **Design, Prototyping and testing of a automatic vibration measurement system using linear stages and a laser doppler vibrometer**
Program: EPFL MSc in Micro-Engineering
Course: Semester project at MOBOTS
Automation, RPi micro-python
- 2021 **Programming of a mobile robot (e-puck) in C for an odometry, camera and ToF based “go-fetch” game**
Program: EPFL BSc in Micro-Engineering
Course: Robotics and Embedded systems
Parallel processing of sensor data, version control (GIT)
- 2021 **Design, Prototyping and testing of a automatic vibration measurement system using linear stages and a laser doppler vibrometer**
Program: EPFL MSc in Micro-Engineering
Course: Semester project at MOBOTS with prof. Francesco Mondada
Automation, prototyping
- 2021 **Programming of a MSP432 in C for motor control with PWM through a joystick and an FPGA in VHDL for LCD display of an image.**
Program: EPFL MSc in Micro-Engineering
Course: Embedded Systems
Microcontrollers, FPGA, Embedded Systems
- 2020 **AVR microcontroller: control of a computer fan based on temperature measurements from an SHT11 Sensirion sensor**
Program: EPFL BSc in Micro-Engineering
Course: Microcontrollers
Assembly, C

Some Projects in Sustainability

- 2022 **Corporate sustainability project proposal for COOP (reducing food waste through dynamic pricing)**
Program: ETH MSc in Mechanical Engineering
Course: Corporate Sustainability
Corporate Sustainability, Green Finance
- 2022 **Debt for Nature Swap and Green Bonds: where can they be used**
Program: EPFL MSc in Micro-Engineering
Course: Economic Growth and Sustainability
Green Finance