

# Manuel Schmid

Electrical engineer experienced in designing power electronics, embedded systems, analog electronics & software. Successfully leading customer-facing projects.

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## EXPERIENCE

### **ZHAW Institute of Energy Systems & Fluid Engineering** Winterthur ZH — *Research Assistant*

August 2021 - PRESENT

Development of battery systems, power electronics, sensors & measurement electronics. Managing projects with direct client interaction.

### **ZHAW Institute of Energy Systems & Fluid Engineering** Winterthur ZH — *Student Assistant*

March 2019 - July 2021

Assisting in industry projects with schematic & PCB design, embedded software development, assembling prototypes, repairing circuits & metalworks

### **Variosystems AG, Steinach SG — Apprenticeship Electronics Technician**

August 2013 - July 2017

Insight into the full production chain of PCBAs. Soldering training by certified IPC trainers. Supporting engineers by assembling prototypes & test systems, designing schematics & PCBs, & developing software

## EDUCATION

### **ZHAW, Winterthur ZH — Master of Science in Engineering,** *partially completed (51 out of 90 ECTS completed)*

August 2022 - January 2025

### **ZHAW, Winterthur ZH — Bachelor of Science ZFH in Electrical Engineering**

August 2018 - July 2021

## PROJECTS

### **QR & Barcode Recognition for Nutrition Tracking Systems** — *Master's Project Thesis*

Collaboration with an ETH startup. Development of a software that detects food trays, sensors sensitive patient data, & reads QR & barcodes using a 3D camera.. The software runs on a Nvidia Jetson.

### **Battery Management System Concept & Prototype for Formula Student** — *Bachelor's Project Thesis*

Literature research concerning battery management systems. Creation of a modular battery management system hardware prototype.

## SKILLS

**ECAD:** Altium Designer, KiCad

**MCAD:** Autodesk Inventor,

Autodesk Fusion, Onshape

**Manufacturing:** 3D Printing,

Soldering, Power and Hand

Tools, PCB Etching

**Programming:** ARM & AVR

Assembly, C/C++, Python,

MATLAB, Java, C#, SQL, VHDL

**Software:** Microsoft Office,

Unity 3D, Git, LTspice

Simulink, Linux, PyTorch,

Keras

**Electrical:** Embedded Systems,

Power Electronics, Digital &

Analog Signal Processing,

Control Design

## Certificates

**TOEFL iBT** English Certificate,

98 out of 120 points, 11/2019

**Cambridge English First B2,**

05/2018

**C++ Programming**

**Professional Certificate by**

OpenEDG C++ Institute,

06/2025

## LANGUAGES

German: native

English: fluent

French: basics