




NICO BÖCKHOFF

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Teufel Lautsprecher GmbH / Berlin

Embedded Software Engineer - Innovation & Development

since 02/2023

- Responsible for the firmware development of the [Concept 8/12 Subwoofer and AV-Receiver](#) as well as bring up and basic operational FW for an unreleased wifi speaker.
- SW development in C & C++ using FreeRTOS, CMake, CLion on NXP & STM MCUs (M4 & M7).
- Coordination with OEMs and third-party module manufacturers regarding software development and API requirements.
- Contributions to several internal cross-product libraries.

Electronics Engineer - Innovation & Development

05/2021 - 01/2023

- Embedded software development (C++) and electronics design in Altium for products in pre-development.
- Collaboration across multiple teams (embedded, electronics, UX, acoustic) to validate features and explore concepts for upcoming products by building hardware and software prototypes.
- Planning and commissioning of a new prototyping lab for products in pre-development.

Human Computer Interaction Lab / Hasso-Plattner-Institute, Potsdam

Research Assistant

12/2019 – 06/2020

- Design and development of a [portable 6DOF haptic gaming console for blind users](#).
- Electronics design including: part selection, BOM, schematic capture and PCB routing in KiCad.
- C++ embedded SW development (motor control and SPI communication interface for precision encoders).
- Led a team to produce 10 devices to be used for teaching undergraduates. Devices still in use 2024.
- Developed and held a lecture on PCB Design.

Freigeist Lab / Berlin

Freelance Embedded Systems Engineer

10/2018 – 03/2019

- Freigeist creates devices that facilitate inclusive work environments for people with cognitive learning disabilities
- Development of an embedded IoT framework in C++ for a [hardware toolkit](#) to communicate with a Python server (REST).
- Electronics design for a custom hardware toolkit including IoT sensors and actuators based on the ESP8266.

HackHPI / Hasso-Plattner-Institute, Potsdam

Founder & Main Organizer

2015 – 2019

- Founded and organized a yearly [hackathon](#) with close to 100 attendees funded by IBM, SAP, Wikidata and others with topics including sustainability, machine learning and health.
- Led the organizer team, coordinated volunteers and communicated with partners & participants.
- Developed the concept, raised sponsorship money (8k first year, 20k second year) and managed the budget.
- Successful handover to new team, event still ongoing in 2024.

Education

Hasso-Plattner-Institute, Potsdam #1 Comp. Science M. Sc program in Germany according to CHE 2021/2022

- **M. Sc. IT-Systems Engineering (final grade: 1.2, with distinction)** 04/2018 – 10/2021
- **Design Thinking Basic Track, [link](#)** 10/2017 – 03/2018
- **B. Sc. IT-Systems Engineering** 10/2014 – 08/2017

Indian Springs School, Alabama, USA

- **High School Diploma** 10/2011 - 08/2012

Skills

- Software engineering (c, c++, python, javascript)
- Designing schematics and PCBs with Altium, KiCad
- Embedded systems, microcontrollers, DSPs, sensors, motors
- Project management & Design Thinking
- UML & system architecture
- oscilloscopes, logic analyzers, reflow-soldering
- Communication protocols (SPI, I2C, USB, USB PD, BLE, UART, DMX)
- Lasercutters, FDM/SLA printers and CNCs
- 3D-modeling using Autodesk Fusion360
- Linux, Git