JOHANNES HIRT B. Sc.

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EDUCATION

Technical University of Applied Sciences Ulm

Ulm, Germany

M. Eng. in Systems Engineering and Management – Electrical Engineering 2025 - 2026 (expected)

The Virginia Polytechnic Institute and State University

Blacksburg, USA

Fulbright scholarship for a course in Leadership and Entrepreneurship

2024

Northumbria University

Newcastle upon Tyne, England

Exchange student

2022

• Grade: 1.0

• Took computer science-related classes

Heilbronn University

Heilbronn, Germany

B. Sc. in Software Engineering

2021 - 2025

• Grade: 1.3

• Specialized in Embedded Systems and Integrated Sensors

PROJECTS

Research project on developing a new machine learning algorithm to classify datasets based on the electric potential.

Heilbronn University

2024.03 - 2024.07

Embedded systems project: building a 3D scanner using a LiDAR sensor.

Heilbronn University 2024.03 - 2024.07

LoRa-based system for presence detection in university learning areas.

Heilbronn University 2023.09 - 2024.02

Portfolio website.

Own project 2025.07 - 2025.08

EXPERIENCE

Working Student | Diehl Defence | Überlingen, Germany

2025.09 - Today

• Implementation of a digital multimeter for the IRIS-T guided missile system.

Freelance Developer | Eviyo GbR | Remote

2024.09 - 2024.11

- Developed a website for bookable leisure activities in the Heilbronn region.
- Created a dynamic, modern, and user-friendly website using a full-stack approach within a small team.
- Implemented features for user authentication, booking management, and secure payment processing.
- Used technologies such as React.js for the frontend.

Intern | Diehl Defence | Überlingen, Germany

2023.03 - 2023.08

- Developed a version control program for the Nexus repository, designed to retrieve and display information clearly. The project involved creating a user-friendly application using Java with JavaFX and storing data locally in a SQLite database.
- Created a calculation tool to assist a test department colleague with software verification for the GUARDION drone defense project. Written in Python, the work required significant effort to understand the undocumented codebase and focused on improving the graphical user interface and validating user input.
- Implemented a graphical user interface for a Python console application that generates Word documents from HTML files.
- Explored hardware-oriented programming, including working with FPGA boards (Basys 3) and learning the Vivado IDE and the Verilog programming language.

Student Assistant | Heilbronn University | Heilbronn, Germany

2021.09 - 2024.03

- Mentored undergraduate students in design thinking and work techniques.
- Helped organize the annual career fair.

Awards	• Fulbright Scholarship, summer course at Virginia Tech.	2025.08
AND	• Company Scholarship, Bechtle AG.	2023.09
Honors	• Company Scholarship, Vector Informatik GmbH.	2022.09

SKILLS

Languages: German (C2), English (C1), French (B1).

Programming: Python, C/C++, MATLAB, Java, JavaScript.

Engineering: Electrical systems modeling & simulation, Software Architecture.

Leadership & Activities

SV Großschönach | Großschönach, Germany

2001.07 - Today

- Playing amateur football for the local team.
- Organizing events and work assignments throughout the year.
- Assisting with activities for children during the summer break.