

Johannes Hirt

B. Sc. Software Engineering

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Education

M.Eng.	Technical University Ulm , Ulm, Germany Systems Engineering and Management – Electrical Engineering	2025 – 2026 (expected)
Summer Course	Virginia Tech , Blacksburg, USA Fulbright scholarship for a course in Leadership and Entrepreneurship.	2024
Exchange	Northumbria University , Newcastle upon Tyne, England <ul style="list-style-type: none"> GPA: 4.0 Completed advanced coursework in Computer Science and Engineering. Gained cross-cultural communication skills and international academic experience. 	2022
B. Sc.	Heilbronn University , Heilbronn, Germany B. Sc. in Software Engineering <ul style="list-style-type: none"> GPA: 3.7 Specialized in Embedded Systems and Integrated Sensors. 	2021 – 2025

Experience

Working Student , Diehl Defence <ul style="list-style-type: none"> Implementation of a digital multimeter for a simulator of the IRIS-T guided missile system. 	Überlingen, Germany 2025.09 – Today
Freelance Developer , Eviyo GbR <ul style="list-style-type: none"> 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. 	Remote 2024.09 – 2024.11
Intern , Diehl Defence <ul style="list-style-type: none"> Built a custom tooling layer for a Nexus-based artifact repository, with a Java/JavaFX desktop client and SQLite cache for fast, structured browsing of metadata. Developed a modular calculation tool for test and validation workflows with configurable input models, automated checks, and structured result reports. Converted a Python console tool for HTML-to-Word report generation into a cross-platform GUI application with clear validation, progress display, and robust error handling. Gained practical experience in digital hardware design on Basys 3 FPGA boards (Verilog RTL, Vivado flow, on-board debugging, basic timing analysis). 	Überlingen, Germany 2023.03 – 2023.08

Student Assistant, Heilbronn University

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

Heilbronn, Germany

2021.09 – 2024.07

Projects

Improvement of Localization and Self-Motion Estimation of a Unitree Go1 Robot

- Improving localization and self-motion estimation of a Unitree Go1 robot as part of an advanced robotics project.

Technical University of

Applied Sciences Ulm

2025.09 – 2026.02

Machine Learning Algorithm Based on Electric Potential

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

Heilbronn University

2024.03 – 2024.07

Embedded Systems Project: 3D Scanner Using LiDAR

- Built an embedded systems project using a LiDAR sensor to create a 3D scanner.

Heilbronn University

2024.03 – 2024.07

LoRa-Based Presence Detection System

- Designed a LoRa-based system for presence detection in university study areas.

Heilbronn University

2023.09 – 2024.02

Portfolio Website

- Developed a personal portfolio website to showcase projects and skills.

Own project

2025.07 – 2025.08

Awards and Honors

- Fulbright Scholarship, Summer course at Virginia Tech 2025.08
- Company Scholarship, Bechtle AG 2023.09
- Company Scholarship, Vector Informatik GmbH 2022.09

Skills

Languages: German (C2), English (C1), French (B1)**Programming:** Python, C, C++, Java, JavaScript, MATLAB**Embedded Systems:** Verilog, VHDL, ROS2, Vivado IDE, FPGA (Basys 3)**Machine Learning & Data:** scikit-learn, pandas, NumPy, Jupyter, TensorFlow**DevOps & CI/CD:** Git, GitHub, GitLab CI, Docker, Bash, Jenkins**Build Tools:** CMake, Gradle, Maven**Databases:** SQLite, MySQL, DjangoDB**Cloud & Hosting:** Netlify, AWS**Electrical Engineering:** Electrical systems modeling & simulation, EDA**Software Engineering:** Software architecture, Software design, Modular coding**3D Printing:** CAD

Leadership & Activities

SV Großschönach

- Amateur football player for the local team.
- Organizing events and work assignments throughout the year.
- Assisting with youth activities during summer.

Großschönach, Germany

2001.07 – Today