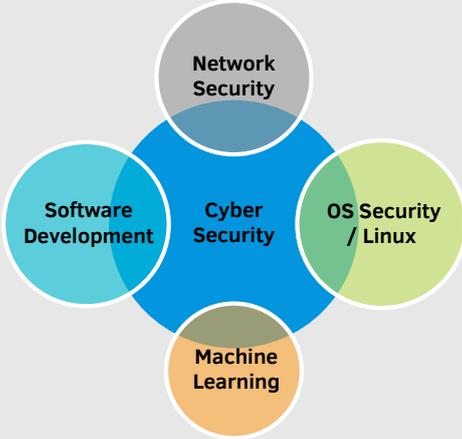# Frederik Berg

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Skills

Technical

Soft

- Management
- Collaboration
- Documentation
- Teaching

Education

Computer Science Continuing Education
Courses in Network Security and Cryptography, Machine Learning, Data and Algorithmic Foundations
RWTH Aachen, Germany
04/2022 - 03/2024

MSc., Automation Engineering (**Grade: 1.4**)
Specialization: Embedded Programming
RWTH Aachen, Germany
04/2019 - 01/2022

Erasmus Semester Abroad - Norway
Lectures about System Development and Programming
Norwegian University of Science and Technology, Trondheim
07/2017 - 12/2017

BSc., Mechanical Engineering (**Grade: 2.0**)
Specialization: Programming and Control
Leibniz University Hannover, Germany
10/2014 - 12/2018

Abitur (**Grade: 1.2**)
Leibnizschule Hannover, Germany
2014

(1.0=A, 5.0=F)

Bio

At the Chair for Embedded Software at RWTH Aachen University, my research focused on the **safety** of embedded medical devices. Over the last year, my interest has increasingly shifted towards **cybersecurity**, a field of high-impact and **crucial** importance for both the present and the future. I am looking forward to working in this dynamic and changing area. My strengths include a strong **motivation to learn** and develop, the ability to solve **complex problems**, exceptional **organizational** skills, and an emphasis on well-documented work.

Experience

09/2023 - 03/2024   **Cybersecurity Certifications and Upskilling**   RWTH Aachen, Germany

- Lecture: Network security and cryptography
- Certificates: Google Professional Cybersecurity Certificate, TryHackMe, (CompTIA Security+ Certificate in progress) (For more see: Link)

08/2022 - 09/2023   **Research Associate in Computer Science**   RWTH Aachen, Germany
Chair for Embedded Software

- Conducted research on the functional safety of medical embedded devices.
- Authored multiple publications, including first-author papers. For more details, see: Google Scholar.
- Supervised a lecture on Advanced Microcontroller Programming and Debugging, focusing on safe and verifiable software.
- Managed projects and supervised students.

08/2023 - 09/2023   **Maschine Learning 4 Good (ML4Good)**   Germany

- Participated in AI safety and alignment camp, focusing on ethical applications of machine learning.

06/2023 - 11/2023   **Development of a Nextcloud Server App**   Germany

- Developed and published a Nextcloud Server App, leveraging PHP, JavaScript, Vue, and Gitlab CI. (Project Link)

03/2023 - Present   **Effective Altruism Aachen Co-Organizer**   Aachen, Germany

- Coordinating events and participating in conferences and online courses focusing on effective, impactful solutions for global challenges.

10/2020 - 08/2022   **Software Development (Student Job)**   RWTH Aachen, Germany
Chair for Embedded Software

- Developed software for controlling medical equipment, including a blood pump control system, using C and Matlab.

04/2019 - Present   **Linux Homeserver Development and Security Projects**   Germany

- Established network infrastructures and implemented monitoring and security systems. Engaged in various software development projects using Python and Bash. Actively contributed to open-source software and documentation.

10/2018 - 03/2019   **Android App Development (Student Job)**   Hannover, Germany
Institute of Tansport and Automation Technology

- Developed an Android camera module application for processing visible light signals, utilizing Java.

Languages

German: Native | English: Fluent