

Daniel Leonard Breuer

I'm a self-directed and pragmatic problem solver, with a focus on programming and software systems in general.

Work

Jan. 2025 – **Airbus Defence and Space GmbH**
now *Software Lead Engineer*

- Architecting & building a network controller for optical satellite communication experiments

Oct. 2023 – **Airbus Defence and Space GmbH**
Dec. 2024 *Simulation & Modelling Engineer*

- Built an eBPF-based packet error pattern emulator for Linux network interfaces (Rust, C, eBPF)
- Built application scheduling for a network simulator (Python)
- Responsible for integration & testing of a network simulator, managing multiple autonomous teams from institutes and industry (Python, Rust, Matlab & Octave)

Sep. 2020 – **Airbus Defence and Space GmbH**
Sep. 2023 *Work-integrated student*

- Built network simulator module for emulating packet loss in optical ground-to-space links (Python)

Feb. 2023 – **Airbus Defence and Space (Toulouse, France)**
Apr. 2023 *Intern*

- Built a tree visualisation and diffing tool for spacecraft simulation scenarios still used in production (Typescript, React)

Other

Sep. 2022 – **Formula Student – Global Formula Racing**
Jul. 2023 *Planning & Control for an Autonomous Racecar*

- Implemented a model predictive contouring controller for an autonomous racecar based on the work (arXiv:1905.05150) of the ETH Zürich AMZ team

Education

Apr. 2025 – **Karlsruhe Institute of Technology**
now *M.Sc. Computer Science*

- Current Grade: 1.0

Oct. 2020 – **Duale Hochschule Baden-Württemberg**
Sep. 2023 *B.Sc. Computer Science*

- Final Grade: 1.3
- Thesis: Generating Realistic Packet Error Patterns for Free-Space Optical Ground-to-Space Links (Grade: 1.0)
- Gave two 24-hour physics tutorials

2012 – 2020 **Karl-Maybach-Gymnasium**
Secondary School (“allgemeine Hochschulreife”)



March 31, 2026

Contact

hire@danbr.eu
<https://danbr.eu>

Skills

Programming

Systems Programming:
C, Rust, eBPF

Scripting,
Scientific Computing:
Python, Matlab & Octave

Web (UI):
Javascript & Typescript,
HTML, CSS, React

Other

- Linux, NixOS
- Rudimentary CAD (OpenSCAD, Solvespace)

Language

German:
Native

English:
Fluent (C2)