

# Chris Pahl

## Senior Software Engineer & Linux Expert

Software Generalist · Loves learning & teaching · Hates complexity · Hobby Open Source developer · Team player & self-driven · Well organized · Made enough mistakes to be good in debugging · Pragmatic tester · Looking for remote work or office work close to Bamberg



## Work Experience

### Head of Software Architecture

»»» | German Bionic GmbH

□ April 2025 – Present

📍 Litzendorf, Germany

- Overview over Cloud infrastructure, IT-Security and general architecture decisions & review of architecture proposals.
- Re-design mobile data transmission to use higher compression ratios, better scaling (1000+ devices) and 50x performance of before.
- Porting our internal OS to CM5 & arm64 and lead migration to Zephyr for MCU based projects (e.g. control system on STM32H7).

### Engineering Manager Software

»»» | German Bionic GmbH

□ May 2022 – April 2025

📍 Augsburg, Germany

- Managing a team of (up to) 5 people (Cloud and Embedded devs)
- Driving architectural decisions for Cloud & Embedded.
- Implementation of monitoring & alerting infrastructure based on Prometheus and Grafana for both device fleet and Cloud infra.
- Firmware maintenance (e.g. kernel update) to support new product generations and development of completely new products.
- Further hiring of developers and interns, including onboarding.
- Sideproject: Automation of the annual 360° Feedback Evaluation.

### Senior Software Developer

»»» | German Bionic GmbH

□ September 2021 – May 2022

📍 Augsburg, Germany

- Heavily refactor backend codebase inherited by a contractor to fit requirements by cutting it down to a third of its size.
- Integrate Modems, WiFi and other hardware into our Firmware/OS.
- Interviewing, onboarding & mentoring of new hires and interns.
- Design and implementation of a RPi-based hardware box, guiding workers through the production process using a Web frontend.
- Debugging of critical & difficult issues, like sudden freezes.

### Software Developer

»»» | German Bionic GmbH

□ April 2019 – September 2021

📍 Augsburg, Germany

- Design and Implementation of »exOS«, an atomically updateable, embedded Linux distribution based on Yocto for the Raspberry Pi, using OSTree and u-boot, with small footprint and fast boot time.
- Design and Implementation of different firmware services in Go (UI, Telemetry, Monitoring, Control System interaction and more).
- Implemented an animated, vectorgraphic UI-Framework using libcairo with many custom widgets and dynamic frame rate.

📍 Litzendorf, Bamberg

📞 (+49)151 2134 0235

✉️ [sahib@online.de](mailto:sahib@online.de)

👤 [sahib](https://www.linkedin.com/in/sahib/)

💻 [christopher-pahl](https://christopher-pahl.de)

🐙 [sahib.github.io](https://github.com/sahib)

## Skills

### Languages

German



English



### Programming

Go



Shell



C/C++



Python



Elm



Javascript



### Operating System

Linux



Zephyr



FreeBSD



Windows



### Disciplines

Optimization



Debugging



Cryptography



Distributed Computing



Architecture



Testing



### Fields

Backend



Embedded



Frontend



Infrastructure



Data Science/AI



