

Résumé

About me

Name	Philipp Erhardt	Website	010.one
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Birthday	██████████ in ██████████	Blog	blog.010.one

Education

November 2020 - today

Technical University of Munich

Bachelor of Science in Informatik (expected completion 2024)

July 2016 - July 2020

Gymnasium ██████████

Graduated with Abitur ██████████

September 2012 - July 2016

Language skills

- **German:** Native language
- **English:** B2+/C1
- **French:** B1+ (DELF)

IT skills and abilities

- **Web development:** Good knowledge in **HTML**, **CSS**, **JavaScript/TypeScript**, **Vue** and **WebAssembly** with **Rust**
- **Go:** Very good knowledge (HTTP servers, bots and web scrapers)
- **App development:** Basic knowledge in Flutter for Android
- **Databases:** Basic experience with SQLite and PostgreSQL
- **Git:** Used in almost every project, often with Gitea or GitHub, there also experience with **CI/Actions**
- **Linux:** Experience with scripting, **Docker**, Raspberry Pi, Valgrind, GDB/rr, Strace and other typical tools
- Basic knowledge in Rust, C, Assembly (x86-64), Java, Dart, C# (WPF) and Python
- Effective research skills with search engines, Stack Overflow etc.
- Experience in creating documents with LaTeX and Markdown
- **Office:** Word, Excel basics and PowerPoint

Interests

Space exploration and rocket technology, cycling, medicine, programming, electronics

Experience

Technical University of Munich

Tutor in the lab course on Computer Architecture (May – September 2022)

Responsibilities: holding two tutor sessions per week, grading projects and helping students learn C, x86-64 Assembly and optimization techniques (SIMD etc.).

Internship as a system integration specialist ██████████

Projects

ax – x86-64 Emulator for WebAssembly (Rust) – ax.010.one

- Executes x86-64 instructions directly in the browser
- Can load and execute simple ELF binaries
- Emulation of a small number of Linux syscalls
- Extensive test suite supported by scripts for automatically finding test cases
- CI pipeline automatically publishes releases on NPM

Rock It! – App for space news (Flutter) – GitHub

- Dates and countdowns for rocket launches and other events
- Feed with news articles on space topics
- Can be used offline, updates when connected to the internet

sensibleHub – Music server (Go) – GitHub

- Web-based management of music files and tags
- Synchronization possible via FTP interface
- Docker multi-architecture build for x86-64, ARMv7 and ARM64

gover – Raspberry Pi Rover (Go) – GitHub

- Remote-controlled rover controlled by a Raspberry Pi
- Controlled via Xbox controller, keyboard or smartphone (via a web interface)
- Avoidance of frontal collisions with ultrasonic sensor
- Combination of software and hardware

Further projects are presented on my website 010.one and on my GitHub account @xarantolus.

Open-Source Contributions

- Mealie: Upload images for recipe steps from mobile devices #2025, duplicate recipes #1750 (Python, Vue)
- Owncast: Several pull requests for new frontend and backend features as well as improvements to the admin UI (Go, React)