



# ANDREAS KARNER

EMBEDDED SYSTEM • INFORMATION SECURITY

## CONTACT

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8200 Hofstaetten an der Raab
- 🎓 Master of Science (MSc)

## SKILLS

- Information Security
  - Protocol Analysis
- Embedded System
  - Zephyr, FreeRTOS
  - Nordic, STM32, ESP32
- Software Development
  - C/C++, Rust
  - Python, SQL/T-SQL
- Protocols
  - BLE, LPWAN, USB
- System/Tooling
  - Linux
  - CMake, CI/CD Gitlab

## LANGUAGES

- German (Native)
- English (Professional)

## MISCELLANEOUS

- ⊕ whati001.rehka.dev
- ⌚ whati001

## PROFILE

Embedded software developer with strong expertise in low-level systems, embedded firmware, and security-oriented development. Extensive experience in C/C++ and Rust, RTOS-based systems, and Linux, combined with solid foundational DevOps knowledge. Skilled in modernizing legacy codebases, developing internal tools, and integrating embedded systems with infrastructure and automation. Passionate about building smart embedded devices to continuously explore new technologies and practical innovations.

## WORK EXPERIENCE

- Embedded Software Developer** 2023 - PRESENT  
SLOC GmbH | Graz
  - Develop and maintain in-house embedded device firmware (C)
  - Lead porting of legacy firmware to Zephyr RTOS
  - Design and implement internal utilities and tooling in Rust
  - Own and manage the build system and CI/CD pipeline (Gitlab)
  - Implement and debug low-level communication protocols (UART, SPI, I2C, BLE, USB)
- B2B/EDI SYSTEM ADMINISTRATOR** 2015 - 2023  
Magna Automotive Europe GmbH | Graz
  - Developed and maintained in-house software tools to improve internal processes
  - Bootstrapped and operated MongoDB, Azure Blob Storage, and Cloudera Data Hub
  - Acted as the technical interface between EDI customers and multiple Magna divisions
  - Built a strong foundation in enterprise systems, reliability, and security

## EDUCATION

- Master of Computer Science** 2017 - 2023  
University of Technology | Graz
  - Major Focus: Information Security
  - Minor Focus: Embedded and Mobile Systems
  - Thesis: "Analysis of Low-level iOS Lightning Protocols" - Design and implementation of a Juice Jacking attack against modern Apple devices.
- Matura Electrical Engineer** 2009 - 2014  
HTBLA | Weiz