



András Gémes

Date of birth: 2 March 1993

Address: Budapest 1096, Hungary

E-mail: andrasgemes@outlook.com

Mobile phone: +36 70 419 3787

gemesa.dev – github.com/gemesa – linkedin.com/in/gemesa

Work experience

Rust Embedded Software Engineer

HighTec EDV-Systeme GmbH

Feb 2023 – present, Budapest

Main tasks:

- implementing Rust HALs and BSPs
- implementing Rust benchmark framework

Software Development Engineer

Knorr-Bremse R&D Center

May 2018 – Jan 2023, Budapest

Main tasks:

- integrating ADAS SW on different ECUs
- configuring platform modules
- implementing platform supporting functions
- setting up the build environment
- performing static code analysis
- building and debugging the executables
- coordinating and supporting interns

Education

MSc in Mechatronics Engineering

Budapest University of Technology and Economics

Feb 2016 – June 2018, Budapest

Specialization: Intelligent embedded systems

Master's thesis: Design of a solar energy utilization system

BSc in Mechatronics Engineering

University of Pannonia

Sept 2012 – Jan 2016, Veszprém

Specialization: Process engineering

Thesis: Design and development of a multicopter-carried river sampling device

Technical skills

Working knowledge:

- embedded systems, microcontrollers (STM32, ESP32, AURIX) and peripherals/concepts (e.g. ADC/DAC, DMA, NVM, RTOS, stack, heap, interrupts, timers, bootloaders, energy modes)
- communication methods (Wi-Fi, BLE, MQTT + AWS IoT, CAN, J1939, UART, SPI, I2C)
- debug tools (ST-LINK/J-Link + GDB, UAD + UDE, PowerDebug + TRACE32, Wireshark, oscilloscope, logic analyzer)
- C, Rust, Python 3, Assembly (ARM)
- GCC, Clang, make, CMake, Meson, Cargo
- PC-Lint, Clang-Tidy, Valgrind
- Linux, Bash (Fedora, Debian, Ubuntu)
- Git (GitHub, GitLab, Bitbucket), Docker, Jenkins

Basic knowledge:

- electronic circuits and PCBs
- Zigbee, LoRaWAN
- IoT hacking

Language skills

- English (working professional)
- Hungarian (native)

Hobbies – projects

- contributing to open-source projects (e.g. [aircrack-ng](https://github.com/aircrack-ng) and [hcxdumptool](https://github.com/hcxdumptool))
- working on my STM32 and ESP32 projects (e.g. [rustlink](#), [esp32-phantom](#), [esp32-mqtt](#), [stm32-rf-scanner](#) and [stm32-dc-dc](#))
- studying for my [CEH](#) exam