

EXPERIENCE

Redcare Pharmacy | Working student

Aug 2023 — Present

- Developed an automation tool using **Python** to monitor and report frequent updates from Gematik regarding e-prescriptions, and to send notifications for key events, keeping the team informed and reducing manual effort.
- Set up a local testing environment using **Wiremock**, **Java**, and **Python** to validate E-prescriptions, and designed a tool to convert example templates into mock files for automated testing, reducing manual effort, enabling early compliance checks, and improving the overall testing workflow.
- Developed **Python** tools for data refactoring and bulk editing of E-prescriptions, including type conversion and field modifications, streamlining test case generation and accelerating development process.

EDUCATION

RWTH Aachen University | B.Sc Computer Science

Oct 2022 — Sep 2025

- **Thesis:** Benchmarked automated memory management techniques on **NVIDIA GH200**, revealing performance trade-offs under diverse memory patterns.

PROJECTS

SPOS — Embedded OS on ATmega664 | C AVR

Apr 2024 — Jul 2024

- Built a custom OS on the **ATmega664** using **C** and **AVR-GCC**, featuring interrupt handling, critical sections, task scheduling, and dynamic memory management across internal SRAM and external **23LC1024** RAM.
- Developed user-facing features including LED matrix output, joystick input, and a real-time **Snake game** to showcase OS functionality.

SPACE AC | Software Engineer

Oct 2020 — Mar 2022

• SPOROS | Arduino C Python Qt5

Nov 2020 — Jul 2021

- Led end-to-end software development using **Arduino (C)** for two autorotating payloads and a CanSat relay system, and **Python/Qt5** for the ground station with real-time data visualization.
- Designed custom communication protocols over **XBee 3 (Zigbee 3.0)**, enabling mid-air telemetry relay between payloads, CanSat, and ground station.
- Secured **3rd** place in the **Annual CanSat Competition 2021**.

• AlienSat | Arduino C Python Qt5

Aug 2021 — Feb 2022

- Developed software for a CanSat payload equipped with a **thermal camera** to stream raw temperature arrays in real-time for environmental analysis of PM2.5–heat correlation.
- Implemented live telemetry and thermal data visualization in the **Python/Qt5**-based ground station; handled direct payload-to-ground communication protocol design.

• Passenger Balloon | Arduino C Python

Oct 2020 — Mar 2022

- Contributed to **three high-altitude balloon missions**, each deploying a CubeSat payload using **Arduino (C)** and **Raspberry Pi (Python)** for autonomous image capture for atmospheric sensing and aerial imaging, reaching altitudes up to 35 km.

• Mentoring | Arduino C Python

Oct 2021 — Mar 2022

- Designed and delivered a structured training program for new team members, covering programming fundamentals, project workflow, and hands-on development with the team's tech stack.

EXTRACURRICULAR ACTIVITIES

Interact Club | President, District Vice President

May 2020 — Mar 2022

- Led a student-run volunteer club supported by **Rotary International**; organized annual events and initiated collaborative community service projects with partner clubs.

TECHNICAL SKILLS

Language: Python, C/C++, SQL

Framework: CMake, AVR, Arduino, CUDA, OpenMP, MPI,

Tools: Git, Github/Gitlab, RaspberryPI, XCTU(Zigbee)

LANGUAGE

Thai: Native

English: C2

German: C1