

## EXPERIENCE

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### 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

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### 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

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### HPC Application | C++ OpenMP MPI

Oct 2024 — Jul 2025

- Collaborated in a team of three to parallelize serial implementation of sparse matrix-vector multiplication, merge sort, and K-means clustering using **C++** and **OpenMP** to leverage a cluster environment.
- Validated correctness of an **MPI**-based heat conduction simulation and used profiling tools (**Vampir**, **Score-P**) to analyze performance bottlenecks, addressing load imbalance and communication overhead.

### Asclepius, ASL translator | Python OpenCV Tensorflow

Mar 2022 — Jun 2022

- Led a team of five in developing a machine learning-based translator for American Sign Language (ASL) to text, using real-time video processing and gesture recognition. **1<sup>st</sup> Place** winner at the **Microsoft APAC AI for Accessibility Hackathon 2022**.
- Oversaw project planning, team coordination, and the design and training of the core deep learning model using **TensorFlow** and **OpenCV**.

### 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 enabling mid-air telemetry relay; secured **3<sup>rd</sup> place** in the **Annual CanSat Competition 2021**.

#### • 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

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### 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

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**Language:** Python, C/C++, Java, Typescript/Javascript, HTML, CSS/SCSS, Haskell, SQL, PostgreSQL, Sass

**Framework:** CMake, CUDA, OpenMP, MPI, Pytorch, React, Next.js, Node.js, Prisma.js

**Tools:** Git, Github/Gitlab

## LANGUAGE

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**Thai:** Native

**English:** C2

**German:** C1