# Simon Sure

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#### **SKILLS**

Soft-Skills: Communication, Work Ethic, Analytical Thinking, Teamwork

Programming-Languages: C, C++, Java, Python, JavaScript, Verilog, HTML

Technologies: Docker, Google Cloud Platform, SLAM, Azure, FPGAs, Networking (Ubiquiti), Git, (Postgre)SQL

Frameworks: React, OpenCV, Tensorflow, Flask, ROS2

#### **EDUCATION**

### BSc in Computer Science | 09/2022 - 08/2025

- ETH Zurich (Swiss Federal Institute of Technology) 🖒 | Zurich, Switzerland
- Rolling Average Grade: 5.94/6
- Focus Courses: Algorithms, Data Structures, Parallel Programming, Computer Architecture, Numerical Methods
- · Other Corses: Discrete Mathematics, Probability, Linear Algebra, Calculus

## German Abitur | 2014 - 2022

- Städt. Gymnasium Thomaeum 🖒 | Kempen, Germany
- Grade: 1.0 (15/15)
- Focus: Mathematics, Physics

## Foreign Language Correspondent English | 12/2018 - 02/2021

- Chamber of Industry and Commerce (1) | Dortmund, Germany
- Translation (German ↔ English), Correspondence (Business Letters, Writing Memos), Oral Communication (Conversation, Telephone Conversation)

#### Emergency Medical Responder | 01/2021 - 08/2022

• German Red Cross | North Rhine-Westphalia, Germany

## **WORK EXPERIENCE**

## Optiver, Netherlands (Upcoming) | Software Engineering Intern | 07/2024 - 08/2024

NVIDIA, Finland | Systems Programming Intern | 02/2024 - 06/2024

#### ETH Zurich, Switzerland | Teaching Assistant for Discrete Mathematics | 09/2023 - 02/2024

Teaching ≈ 30 students, collaboration with fellow TAs, grading assignments, grading exam

#### WOKO Studentische Wohngenossenschaft, Switzerland | House Representative | 08/2022 - Present

• Apartment Checks/Moves, Resident Contact Person, Handling Complaints/Requests

## Freelancer, Germany | Web & IT Services | 01/2022 - Present

- · Lead administration of a linux web server, ensuring maximum uptime & security
- Proactively manage and enhance the dynamic website, effective site management, ≈ 2.900 monthly users

#### Adult Education Center | Lecturer | 07/2020 - 03/2022

#### **PROJECTS**

## Field Robot 🖒 | 2019 - 2023

- Developed an autonomous two-wheeled robot, addressing pesticide use and labor challenges in agriculture
- Collaborated with farmers for real-world testing and validation
- · Built custom convolutional neural net for vision, odometry, navigation in crop fields & robot simulation
- Technologies: C++, Python, ROS(2), Gazebo, Vision & prioritizing efficient performance for real-time edge application

## FLIZAR, Personalized Al-Powered Exam Preparation (1) | 05/2023 - 01/2024

- Recognized struggle of students to efficiently prepare for exams, conducting basic market research, leading the implementation, communicating with various stakeholders (students, educators, publishers)
- Initiated several pilot projects with educators (professors, teachers)
- Development Lead (LLM integration, Python backend, React frontend)

## FloRaWAN, Urban Flora Monitoring System | 08/2020 - 06/2022

- Discovered impact of climate change on urban flora, developed strategy to combat risks with stakeholders (municipal authorities, local companies, residents), obtained budget and drove implementation
- Enabling simplification of plant maintenance & care by the parks department (covering 14.000 trees)
- Radio (LoRaWAN), sensor units (ESP32, C), data analysis and visualization (InfluxDB, Node-RED, Grafana)

## Interactive Video Production (1) | 08/2021 - 06/2022

- Realized burden for students to choose high school during the covid pandemic, initiated project, secured funding, got advanced unmanned areal vehicle certification, planned & produced the video shooting and editing
- Implemented an interactive web experience (user chooses video flow) using Eko and React, reaching > 3.000 users

#### Astro Pi | European Space Agency & Raspberry Pi Foundation | 04/2021

- Comparative analysis of key environmental metrics (humidity, light exposure, ...) between earth and the ISS
- Experiment performed on the ISS as part of the Astro-Pi competition

#### **EVENTS AND HACKATHONS**

#### Collabothon, RedHat & Commerzbank, Prague, Czechia | 10/2023

• Fintech Hackathon Winners, project link 🛈

## Code & Create, Karlsruhe, Germany | msg Systems | 06/2023

• Hackathon Winners, project link 🗅

## Digital Seeds, Germany | Huawei | 2023

Associated with project: FLZAR

#### Junction 2023, Helsinki, Finland | 11/2023

project link ①

## DevOps Challenge, Frankfurt, Germany | KfW | 07/2023

project link τ<sup>1</sup>

Kanban Workshop, Munich, Germany | msg Systems | 05/2023

Hackathon, Zurich, Switzerland | Optiver | 03/2023

Hackathon, Zurich, Switzerland | VIScon/ETHZ | 10/2022

proiect link τ<sup>1</sup>

## **AWARDS**

## Scholarship (top 0.5 %) | German Academic Scholarship Foundation (Studienstiftung des Deutschen Volkes)

- · Awarded for outstanding academic achievements and social commitment
- · Seminars, workshops, study groups, ...
- Monetary study support

#### 5th Place Nationally (top 0.1 %) | National Youth Research Competition

- · Leading Youth Research Competition showcasing independent research abilities while at school
- · See: Field Robot Project

## Konrad Zuse Youth Award in Computer Science | Eduard-Rhein Foundation

- Awarded as Part of the National Youth Research Competition
- See: Field Robot Project

## Mathematics Olympiad State Competition (top 4 %) | 2015, 2018, 2020, 2022

• Prestigious Mathematics Competition, testing advanced problem-solving skills

#### Scholarship | E-Fellows Talent Network

- · Professional network scholarship for career advancement
- Awarded based on academic performance and leadership potential

#### Abitur Awards: Mathematics & Physics | 06/2022

Awarded for outstanding performance on Abitur (German school leaving exams)

#### **VOLUNTEER EXPERIENCE**

**Goole Developer Student Club** | Core Team Member, Event Organization, Team Collaboration, Community Building, Mentorship & Support (mentoring and supporting students, facilitating their growth), Corporate Engagement

VIS - ETHZ CS Student Association | Semester Spokesperson (evaluating courses, representing students with professors)

German Red Cross | Paramedic (providing emergency medical services at events), Civil Protection (supporting in case of public dangers, evacuation and care during large-scale emergencies)

Student Body President | Communicating with Students & Faculty, Organizing Student Events, Discussing School Policies

## **HOBBIES**

Running/Fitness | Regular workouts, endurance training/half-marathons

**Playing with Tech** | trying out software and hardware, setting up servers/service, learning new skills (mobile app development)

Reading/Learning | Reading (classical) fiction/news/non-fiction/..., online-courses

## **LOCATIONS**

Kempen, Germany | until 2022

Zurich, Switzerland | 08/2022 - 02/2024

Helsinki, Finland | 02/2024 - 06/2024

Netherlands, Amsterdam | 07/2024 - 08/2024

Princeton, USA | 09/2024 - 12/2024