# Simon Sure

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#### **SKILLS**

Languages: Java, C, C++, Rust, Python, JavaScript, Verilog, SQL, HTML

Technologies: LLMs, ML, Git, Docker, Google Cloud Platform, SLAM, PostgreSQL, Azure, FPGAs, Networking (Ubiquiti)

Frameworks: React, OpenCV, Tensorflow, Flask, ROS2

#### **EDUCATION**

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

- ETH Zurich (Swiss Federal Institute of Technology) 🖒 | Zurich, Switzerland
- Grade: 5.9/6
- Focus Courses: Algorithms, Data Structures, Parallel Programming, Computer Architecture
- Other Corses: Discrete Mathematics, Probability, Linear Algebra, Calculus

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

• Chamber of Industry and Commerce 🖒 | Dortmund, Germany

#### **WORK EXPERIENCE**

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

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

## 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

#### **PROJECTS**

## FLIZAR, Personalized Al-Powered Exam Preparation 🛈 | 05/2023 - Present

- 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, expecting to reach 5.000 active students/users by the end of the year
- Co-Founder (team of 4) & Developer (LLMs, Python backend, React frontend)

### Regular Hackathon Participant/Winner | 2022 - Present

- · Leading back end development within variable teams & contributing to React frontends
- @Collabothon/RedHat (FinTech winner) ப், @msgSystems ப் (winner), @Optiver, @KFW ப், @ETHZ ப், and more

## Agricultural Robot Development 🖒 | 2019 - 2023

- · Developed an innovative 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, Gazebo, Vision & prioritizing efficient performance for real-time edge application

### 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 🛈 | 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 for ≈ 3.000 users

#### **AWARDS**

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

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

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

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

#### **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

**ETHZ CS Student Association** | Semester Spokesperson (evaluating courses, representing students with professors), Computer Application Team (implementing features for tools such as Exam Collection τ for thousands of users), Events

**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)