# Felix Kunze

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#### **SKILLS**

Software Electrical Mechanical

Rust, C, Python, Linux, OpenGL, Kicad, Embedded Systems, Autodesk CFD, 3D printing, ROS, Computer Architecture Reading Datasheets Soldering, Machining

# **PROJECTS**

**ARIS** - Rust, C/C++, ROS, KiCad, CAN, Control Systems, MATLAB *Academic Space initiative Switzerland* 

2023-2024

- ♦ **Project ODYSSEY:** Development of a bi-liquid rocket to be the first student team to reach the karman line. Personally as leader of the electronics team; currently focusing on the development of the pump system
- Project NICOLLIER: Coaching of the Electronics team. Calculation and tuning of accurate guidance models for parachute systems.
- ♦ **Project BERNOULLI:** Development of a Flight computer for a hybrid rocket with a guided recovery system

**RAMOTS-Telescope** - Arduino, OpenCV, Woodworking, Welding, Power Electronics *Lake Constance astronomy Organization* 

2020 - 2023

Construction of a mobile automatic telescope with a 16" mirror for satelite tracking. Features include a in-house serial communication protocol as well as using computer vision models to track the satelites without human interaction. The work received broad media coverage and was published in hobbyist astronomy journals

# Scaffold Game Engine - Java, OpenGL, GLSL, Gimp

2022

Game Engine in Java with LWJGL

Object Oriented Game Engine with an Entity Component System sporting support for animations and text-rendering via bitmap fonts.

# **F1 in Schools** - Autodesk Fusion & CFD, Wordpress, Inkscape

2020 - 2021

Multi-Disciplinary Internation Technology Competition

Construction of a gas-powered race car via MJF-3D Printing and simulation of its Aerodynamics. Fundraising from multiple regional companies.

## Stipend "Simulated Worlds"

2021

2022-2022

Center for communication and information of Ulm University

Development of a simulator for the energy usage in an IOT network together with academic professionals.

### **WORK EXPERIENCE**

2023	Teaching Assistant in Digital Circuits	2021	President of the robotics club
2023	Coaching at the F1inschools Competition	2019	Taught weekly Astronomy class
2022	Teaching of a Java Programming Course	2019	Internship at SAP in Markdorf

#### AWARDS AND RECOGNITIONS

2022 January	First prize at the German national computer science olympiad
2021 November	Reiff-Prize from the Max-Planck institute for building the RAMOTS-Telescope
2021 July	Karl-Maybach-Prize 2021 for extraordinary scholastic achievements and social commitment
2020 October	Best Delegate Award at a Model United Nations conference
2019 May	Award by the Zeppelin-Foundation for the construction of a Smart Home

#### **EDUCATION**

ETH Zürich 2022- Today Karl-Maybach-Gymnasium 2017-2022

Abitur: 1.0 (GPA: 4.0)

**University of Constance:** 

BSc. Electrical Engineering (Sem. 4) Current Average: 5.5

Early university placement, gained 12ECTS