## Lilli Freischem

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github.com/lillif

#### **EDUCATION**

## BEng. Electronics and Computer Science – University of Edinburgh, UK, 2017-present

- Awarded scholarship for academic achievements and extracurricular activities by the German Academic Scholarship Foundation (Studienstiftung des deutschen Volkes)
- Current predicted grade: 1st (83% average)

#### Abitur – Ursuline High School for Girls, Cologne, Germany, 2017

- Graduated with 1.0 average grade, advanced level subjects: Mathematics (15/15) and Physics (15/15)
- Awarded the German Physical Society's prize for outstanding achievements in physics
- As an active member of the school's robotics club I worked at developing autonomous robots in the four final years of school

## **EXPERIENCE**

#### European Astronaut Centre (EAC), Data Analysis Intern, Cologne, Germany, July 2018

- One-month work experience with the European Space Agency's Space Training Team
- Investigated visualisation methods for a database of more than 12,000 ISS procedures
- Developed an interactive html representation of the procedure connections aiming to make the links useful for procedure management

## The School of Joy "AL-FARAH", Teaching Assistant, Bethlehem, Palestine, October 2016

 Volunteering at a school for slow learners as teaching assistant in English classes and helped children with special needs with their studies, did an Arabic language course beforehand

## World Organisation for Animal Health (OIE), Intern, Paris, France, June 2015

- Two-week internship followed by working as assistant at the global conference on biological threat reduction
- Organised and ran the conference poster session, edited posters and PowerPoint presentations

## **PROJECTS**

## Edinburgh University Engineering for Chance, Project Cambodia Leader

September 2018 – present

- Organised the application process and interviews for selecting the project team
- Responsible for preparing the journey in June 2019 and communicating with the local NGO in Cambodia which includes organising fund raising and booking flights

# **Edinburgh University Electronics and Electrical Engineering Society, Social Secretary** May 2018 – present

- Founded the society in my first year at university together with fellow students
- Contributed to setting up society structures by working on the constitution
- Elected to be the first Social Secretary, aiming to create a friendly, professional and close community by organising various socials and academic families
- Organised sponsorship for the society with pubs in Edinburgh

#### HYPED – The University of Edinburgh Hyperloop Team

September 2017 – July 2018

- Worked in the team that participated in the 2nd Hyperloop SpaceX-Competition
- As part of the Electronics Controls team, I designed the accelerometer PCB that was used for navigating the pod working together with the Software team

## **CanSat Competition**

February 2015 – June 2016

- My team won the German CanSat competition and came second in the European finals
- Designed a satellite prototype that was dropped from about 1000m height and carried out a self-developed scientific mission
- Main responsibility was the electronic and software design of the satellite as well as fundraising and publicity work

#### **SKILLS**

#### **Programming Languages**

C

Introduced to C Programming in Computer Programming Skills and Concepts (final grade: 97%). Used C in coursework projects to build spellcheckers and a cache simulator.

#### lava

Learned java in Object-Oriented Programming class (final grade: 99%).

#### Assembly (MIPS)

Used MIPS assembly language for coursework projects for Introduction to Computer Systems class (final grade: 79%, MIPS coursework: 90%).

#### Git

Participated in a git workshop for HYPED members. Gained more experience using it for various projects.

#### **MATLAB**

Able to do basic calculations and plots. Currently improving my skills using MATLAB for this semester's Algorithms, Data Structures and Learning class.

HTML, JavaScript and CSS Self-taught web development skills. Completed online html and JavaScript courses and worked on small projects.

#### **Electrical Design**

Altium Designer

Designed the accelerometer circuit and PCB for HYPED. Able to create components, design a circuit and assemble the PCB.

#### **LTSpice**

Used for designing and simulating circuits for Laboratory classes.

## **CAD Software**

OpenSCAD

Used OpenSCAD to design CAD modules in my school's robotics club. Designed wind turbine prototypes and used a 3D printer built by teachers to print them.

#### **LANGUAGES**

German (native) English (fluent) French (intermediate)

## **INTERESTS**

Mountaineering Rock Climbing Horseback Riding