

# Lukas Jansen

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## Professional Summary

### Hard skills

- OOP in Java SE on an advanced level, ability to learn new libraries quickly
- Software Testing with junit
- Basics of Java EE, used in my high school research project
- Profound Debian-linux skills
- SGE experience
- Working with electronics and the Arduino platform, for my high school research project I used an Arduino connected to an ESP2886 and designed my own PCB
- Basics of C++, Python, SQL
- Wet lab experience
  - Biochemical: Protein Purification, ELISA, DNA cloning
  - Bioprocessing: Fermenting, DSP
  - Microbiology
  - Cell cultures
- Basics of Docker containers, on my current personal server, the services are defined in docker-compose files
- Machine Learning using Weka
- Version control with Git
- R on a basic level for statistics and plotting

### Soft skills

- Comfortable with presentations
- Organizing projects
- Personal use of time tracking and a GTD system
- Teaching

## Work History

### UAS Emden/Leer, Student associate – Research assistant, 01/2019 - Now

Due to the time intensive lab courses in my fifth term I took a break from my tutoring job, but already started working on a project by my bioinformatics professor on methylome patterns. All processing heavy steps were implemented in multithreaded Java programs, as well as the first SGE parallelization, but later I switched to Snakemake to describe the whole workflow. The data visualization/reporting was done in a Rmarkdown file with ggplot2 plots and to be able to actually work with the data in R, I used the ff library to construct virtual data frames stored as binary data on the hard drive.

I also volunteered in the Hive Health university project, in which the goal was to develop an apiary weighing scale and software platform. I used the espressif ESP32 with an Arduino compatible library and constructed an easy adaptable MQTT sensor node.

### UAS Emden/Leer, Student associate – Programming tutor/Sysadmin, 03/2018 - 06/2018

*Due to a number of vacant posts and a server crash over the term breaks the automatic scoring test software setup and tasks for the programming 2 course were lost. In addition to my teaching responsibilities, I deployed a "KIT-Praktomat" software setup, trying to preserve maintainability using Bash scripts for instance administration and integrating it with the university Shibboleth system.*

#### **UAS Emden/Leer, Student associate – Programming tutor, 10/2017 - 01/2018**

*In the first programming lectures, the bioinformatics professor noticed my already advanced skills, as I spent time during my middle and high school years with reading books on Java programming, object-oriented patterns and Linux administration, as well as working on smaller projects from time to time, so he offered me a teaching position.*

*My tasks revolved around overseeing practical lessons, providing help and developing the tasks for the next run of the programming 1 course including scoring tests using junit and reflection.*

#### **Education**

**2016-Now:**

*Bachelor of Science in Biotechnology (Specialization in Bioinformatics) at the University of Applied Sciences Emden/Leer*

**2016:**

*A-levels at the Mariengymnasium Jever: 1.5 (Advanced courses: Biology, Physics, Mathematics; Bilingual education, Seminar course: Microcontrollers)*