# Claus **Lensbøl**


Software designer · Telecommunication

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## Summary


Collaborative engineer with a flair for all things internet and their implementations. A strong background in Linux and experience working with digital communication in various ways. Interests lie in complex networks, mobile communication, OpenSource development, maker spaces, network protocols, and data mining. Good theoretical background, but not afraid of practical work. Works great independently as well as in teams. Social and outgoing.


## Skills

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|---|---|
| **Programming** | Ruby, Python, C, C++, Java, Android, Matlab, LaTeX |
| **DevOps** | Docker, Vagrant, Ansible, Puppet |
| **Back-end** | Rails, Sinatra, REST API |
| **Languages** | Danish, English |
| **Other** | Advanced Linux administration, BGP on OpenBSD, ZFS, CCNA, CCNP |

## Education

### DTU (Technical University of Denmark)

*Kgs. Lyngby, Denmark*

MSc. Eng. Telecommunication — *Aug. 2016 - Jun. 2018*

- Theory and implementation in telecommunication related subjects.
- Specializing in Networks & Protocols, with focus on courses as *Software-Defined Networking*, and *FPGA design for Communication systems*.
- Spend a semester abroad studying at KAIST in South Korea in the fall of 2017 studying amongst others *Telecommunication software design*.
- Master thesis: *Improving multicast applications in WiFi environments*. Making changes to Linux kernel drivers to change Multicast behaviour as well as a test framework written in Ruby - *github.com/cmol/multicast-perf-test*

### DTU (Technical University of Denmark)

*Kgs. Lyngby, Denmark*

BSc. Eng. IT & communication technology — *Aug. 2013 - Jun 2016*

- Theoretical background in networking and internet, backed by project implementations.
- As part of a DTU course I did a port of the Cubesat Space Protocol from FreeRTOS to eCos - *github.com/cmol/libcsp*.
- Created an in home light automation system similar to the Phillips Hue as part of a course project - *github.com/cmol/arduino-rgb*.
- Bachelor thesis: *High precision timing in mobile fronthaul networks*. Implementation of the Precision Time Protocol in Ruby and C for my bachelor thesis. Created to test different aspects of the timing algorithm - *github.com/cmol/ruby_ptp*.

### Technical Education Copenhagen

*Ballerup, Denmark*

Data Technician — *Oct. 2008 - Jul. 2013*

- Practical work with networking, system administration and programming. A very hands-on education.
- Nominated for honorary scholarship.
- Final project: P2P VPNs behind NAT - https://github.com/cmol/punchVPN.
- Internship at Fab:IT Aps.

## Experience

### Zeuxion ApS

*Værløse, Denmark*

Software and FPGA design engineer — *Sep. 2018 -*

- *Consultant work for third party companies, internal education and devops.*
- Implementing highspeed packet transfer mechanism in RTL.
- Implementing a Hardware Abstraction Layer in a large C++ codebase to make it possible to use current software on coming hardware platforms.
- Starting and organizing internal education session scheme for developing skills within the organization, and for promoting an information sharing culture. I have amongst others been teaching Collaborative development with Git.
- Reworking internal IT infrastructure to ease deployment of new services and to align user experience across all work environments.

**Fab:IT ApS** *Copenhagen, Denmark*

Linux system administrator and DevOps. *Aug. 2013 - Jun. 2018*

- *Managing networks, virtualization, storage and Linux/BSD environments.*
- Running, maintaining and upgrading a high performance DNS cluster as well as developing tweaks to internal resolvers for optimizing network performance. Deployment of DNSSec.
- Developing server automation for installation and lifetime management of Linux servers.
- Developed programs for gathering statistical data on runtime metrics.
- Design, implementation, testing and deployment of IPv6.

## Talent programs

**Huawei: Seeds for the future** *Beijing/Shenzhen, Beijing*

Selected student *Jul. 2016*

Selected to be part of the Danish delegation for the program, including a trip to China. This has included a stay in China with other students in the program to learn more about Chinese culture as well as network theory for mobile communication and fiber-to-the-home connections.

## Course details

**Telecommunication software design** *Daejeon, S. Korea*

KAIST (Korea Advanced Institute of Science and Technology) *Fall 2017*

Design and implementation of physical layer, data link layer and network layer protocols.

**Software designed networking** *Kgs. Lyngby, Denmark*

DTU (Technical University of Denmark) *Spring 2017*

Design and implementation of network services using the Software Defined Networking (SDN) paradigm.

**FPGA design for communication systems** *Kgs. Lyngby, Denmark*

DTU (Technical University of Denmark) *Fall 2016*

To analyze and design integrated circuits based on FPGA technology for use in broadband communications.

**Introduction to mobile communication** *Kgs. Lyngby, Denmark*

DTU (Technical University of Denmark) *Fall 2015*

Mobile and data communication in current and future cellular networks.

## Publications

**Caching at the Mobile Edge: a Practical Implementation** *Kgs. Lyngby, Denmark*

IEEE Access *2018*

Justas Poderys, Matteo Artuso, Claus Michael Oest Lensbøl, Henrik Lehrmann Christiansen, and José Soler.

## Volunteer work

**OpenSource contributions**

Translator, bugfixer

Throughout the years I have made a range of OpenSource contributions. These contributions range from translations for applications, to smaller bug fixes for various projects.

## Personal life

Much of my free time is devoted to different projects. I am currently playing in a band as a drummer and also managing many of the technical aspects related to sound engineering.

I attended *Den Rytmiske Højskole (DRH)* (The rhythmic folk high school) in the spring of 2008 to further my music and collaborative experiences. During that time, I was in charge of organizing a tour in Denmark for my own and other bands.

In my youth, much of my time was spent as a scout at the local group. In my later years, I worked as a troop leader.

Besides using my time being creative with music, I have enjoyed experiencing the world through my exchange and by travel.

## References

References can be provided by request.