

# Claus Lensbøl

SOFTWARE ENGINEER · TELECOMMUNICATION

Toronto, ON, Canada

🏠 [www.cmol.me](http://www.cmol.me) | 📧 [cmol](mailto:cmol) | [in lensboel](https://www.linkedin.com/company/lensboel) | [📷 lensboel](https://www.instagram.com/lensboel)

## Summary

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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, realtime network synchronisation, software development, OpenSource, network protocols, multicast networking, and data mining. Good theoretical background, backing practical real-world implementations. Works great independently as well as in teams. Social and outgoing.

## Skills

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<b>Programming</b>	Go/Golang, Ruby, C++, Socket programming, Bash, SQL, C
<b>Code management</b>	Git, Gitlab/Github, Jenkins, Jira, Crucible
<b>DevOps</b>	Docker, Vagrant, Ansible, Gitlab CI
<b>Frameworks/SDK</b>	Ruby On Rails, Android, Sinatra
<b>Languages</b>	Danish, English
<b>Other</b>	In-depth network protocol knowledge, mobile networks and backhaul, Advanced Linux administration, CCNA, CCNP

## Experience

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### Humi

Toronto, ON, Canada

SENIOR SOFTWARE ENGINEER

Oct. 2022 - current

- *Development on Ruby On Rails monolith running payroll.*
- Reduce payroll calculations by adding threaded concurrency to calculations
- Complete rewrite and deploy of new tax engine for Canada
- Scope, design, develop and deploy external integration for accounting partner
- Implement tracking system for background jobs running in Sidekiq

### Lenbrook International

Pickering, ON, Canada

SOFTWARE ENGINEER

Jul. 2021 - Sep. 2022

- *Internal development on existing/upcoming hardware platforms and DevOps.*
- Develop new protocol definitions for internal and external M2M communication
- Redevelop legacy Perl code into Go/Golang along side transition mechanisms for incremental introduction
- Introduce CI and coding standards across organization, especially for Go/Golang projects
- Develop new mechanism to browse local music libraries in Go, enabling new features and easy further development

### Zeuxion ApS

Værløse, Denmark

SOFTWARE AND FPGA DESIGN ENGINEER

Sep. 2018 - Jun. 2021

- *Consultant work for third party companies, internal education and DevOps.*
- Implementing a Hardware Abstraction Layer in a large C++ codebase to make it possible to use current software on coming hardware platforms.
- Development of software for highspeed network testing equipment based on ARM Linux platform with Qt frontend.
- 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 DEVOPS AND SOFTWARE ENGINEER.

Aug. 2013 - Jun. 2018

- *Managing automation of 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.

## Education

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### DTU (Technical University of Denmark)

MSc. ENG. TELECOMMUNICATION

- Theory and implementation in telecommunication related subjects.
- Specializing in Networks & Protocols, with a focus on courses as *Software-Defined Networking*, and *FPGA design for Communication systems*.
- Spent 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/cm01/multicast-perf-test](https://github.com/cm01/multicast-perf-test).

*Kgs. Lyngby, Denmark*

*Aug. 2016 - Jun. 2018*

### DTU (Technical University of Denmark)

BSc. ENG. IT & COMMUNICATION TECHNOLOGY

- Theoretical background in networking and internet, backed by project implementations.
- Created an in home light automation system similar to the Phillips Hue as part of a course project - [github.com/cm01/arduino-rgb](https://github.com/cm01/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/cm01/ruby\\_ptp](https://github.com/cm01/ruby_ptp).

*Kgs. Lyngby, Denmark*

*Aug. 2013 - Jun 2016*

### Technical Education Copenhagen

DATA TECHNICIAN

- Nominated for honorary scholarship.
- Final project: OpenVPN wrapper for P2P VPNs behind NAT with UPnP-IGD, NAT-PMP and UDP hole punching - [github.com/cm01/punchVPN](https://github.com/cm01/punchVPN).

*Ballerup, Denmark*

*Oct. 2008 - Jul. 2013*

## Talent programs

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### Huawei: Seeds for the future

SELECTED STUDENT

Selected to be part of the Danish delegation for the program. This included a stay in China with other students in the program to work and learn in a group of different cultures, as well as network theory for mobile communication and fiber-to-the-home connections.

*Beijing/Shenzhen, China*

*Jul. 2016*

## Course details

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### Telecommunication software design

KAIST (KOREA ADVANCED INSTITUTE OF SCIENCE AND TECHNOLOGY)

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

*Daejeon, South Korea*

*Fall 2017*

### Software designed networking

DTU (TECHNICAL UNIVERSITY OF DENMARK)

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

*Kgs. Lyngby, Denmark*

*Spring 2017*

### Introduction to mobile communication

DTU (TECHNICAL UNIVERSITY OF DENMARK)

Mobile and data communication in current and future cellular networks.

*Kgs. Lyngby, Denmark*

*Fall 2015*

## Publications

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### Caching at the Mobile Edge: a Practical Implementation

IEEE ACCESS

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

*Kgs. Lyngby, Denmark*

*2018*

## Volunteer

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### OpenSource contributions

BUGFIXES, FEATURES, AND TRANSLATIONS

Throughout the years I have made a range of OpenSource contributions. These contributions have lately been geared towards Go/Golang, as well as some Ruby documentation fixes. Please see <https://github.com/cm01> for details.

## References

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References can be provided by request.