

Claus Lensbøl

SOFTWARE ENGINEER · TELECOMMUNICATION

Toronto, ON, Canada

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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, most recently with Canadian banking systems. 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

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

Experience

Humi

Toronto, ON, Canada

SENIOR SOFTWARE ENGINEER

Oct. 2022 - current

- Development on Ruby On Rails monolith running payroll.
- Design and implement support for multiple operating banks for payroll and tax remittance
- Integrate with new banking partner including proprietary money movement systems
- Reduce payroll runtime by implementing custom threadpool for tax calculations
- Complete rewrite and deploy of new tax engine for Canada
- 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

DTU (Technical University of Denmark)

MSC. ENG. TELECOMMUNICATION

Kgs. Lyngby, Denmark

Aug. 2016 - Jun. 2018

- 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.

DTU (Technical University of Denmark)

BSC. ENG. IT & COMMUNICATION TECHNOLOGY

Kgs. Lyngby, Denmark

Aug. 2013 - Jun 2016

- 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.
- 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.

Technical Education Copenhagen

DATA TECHNICIAN

Ballerup, Denmark

Oct. 2008 - Jul. 2013

- 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.

Talent programs

Huawei: Seeds for the future

SELECTED STUDENT

Beijing/Shenzhen, China

Jul. 2016

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.

Course details

Telecommunication software design

KAIST (KOREA ADVANCED INSTITUTE OF SCIENCE AND TECHNOLOGY)

Daejeon, South Korea

Fall 2017

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

Software designed networking

DTU (TECHNICAL UNIVERSITY OF DENMARK)

Kgs. Lyngby, Denmark

Spring 2017

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

Introduction to mobile communication

DTU (TECHNICAL UNIVERSITY OF DENMARK)

Kgs. Lyngby, Denmark

Fall 2015

Mobile and data communication in current and future cellular networks.

Publications

Caching at the Mobile Edge: a Practical Implementation

IEEE ACCESS

Kgs. Lyngby, Denmark

2018

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

Volunteer

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

References can be provided by request.