

Claus Lensbøl

SOFTWARE ENGINEER · TELECOMMUNICATION

Toronto, ON, Canada

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Summary

Experienced Software Engineer specializing in Linux, networking, and digital communication systems. Strong expertise in designing and optimizing complex system, from high speed network testers to Canadian banking integrations. Passionate about OpenSource, network protocols, real-time synchronization, and multicast networking. Combines deep theoretical knowledge with hands-on implementation, delivering scalable and efficient solutions. Works effectively both independently and in teams, bringing a collaborative and proactive approach.

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, Mobile networks and backhaul, Advanced Linux administration, OpenVPN, Wireguard, CCNA, CCNP, Canadian banking systems using EDI/EFT/proprietary systems

Experience

Humi

Toronto, ON, Canada

SENIOR SOFTWARE ENGINEER

Oct. 2022 - Present

- Led backend development for a Ruby on Rails payroll platform, ensuring seamless payroll execution for thousands of businesses.
- Architected support for multiple banking partners, improving payroll reliability and removing single vendor risk.
- Integrated with a proprietary money movement system, optimizing payroll transactions and adding transaction state visibility.
- Spearheaded the migration of payroll infrastructure to a new banking partner with zero downtime, ensuring business continuity.
- Reduced payroll processing time by 25% by implementing a custom thread pool for tax calculations, accelerating batch transactions.
- Designed and deployed a new Canadian tax engine, enhancing tax accuracy and maintainability for payroll transactions.

Lenbrook International

Pickering, ON, Canada

SOFTWARE ENGINEER

Jul. 2021 - Sep. 2022

- Developed and optimized software for hardware platforms, improving system performance and maintainability.
- Designed new protocol definitions for internal and external M2M communication, increasing data transmission efficiency by 80%.
- Part of migration of legacy Perl systems to Go/Golang, implementing an incremental rollout strategy to ensure a seamless transition to new codebase.
- Established CI pipelines and enforced coding standards for Go projects, removing most developer errors on primary branch.
- Built a local music library browsing mechanism in Go, enabling faster and more accurate search capabilities for end-users.

Zeuxion ApS

Værløse, Denmark

SOFTWARE & FPGA DESIGN ENGINEER

Sep. 2018 - Jun. 2021

- Consulted on software and FPGA solutions, delivering high-performance systems for third-party clients.
- Developed a Hardware Abstraction Layer (HAL) in a large C++ codebase, ensuring future compatibility with next-generation hardware.
- Built software for high-speed network testing on an ARM Linux platform with a Qt frontend.
- Founded and led an internal education program, upskilling engineers in Git and collaborative development, increasing knowledge sharing.
- Optimized internal IT infrastructure, reducing deployment times and unifying the user experience across services.

Fab:IT ApS

Copenhagen, Denmark

LINUX DEVOPS & SOFTWARE ENGINEER

Aug. 2013 - Jun. 2018

- Automated and optimized Linux/BSD environments, improving system efficiency and scalability.
- Maintained and upgraded a high-performance DNS cluster, enhancing query resolution speeds, and network reliability.
- Developed automation tools for server provisioning and lifecycle management, reducing manual effort and deployment errors.
- Built data collection tools for runtime metrics analysis, enabling proactive system monitoring and issue resolution.
- Led the design and deployment of IPv6 infrastructure, ensuring future-proof networking capabilities.

Education

DTU (Technical University of Denmark)

Kgs. Lyngby, Denmark

MSC. ENG. TELECOMMUNICATION

Aug. 2016 - Jun. 2018

- Specialized in Networks & Protocols, gaining expertise in *Software-Defined Networking* and *FPGA Design for Communication Systems*.
- Completed a semester abroad at KAIST, South Korea (Fall 2017), with a focus on *Telecommunication Software Design*.
- Master's thesis: *Improving Multicast Applications in WiFi Environments*. Modified Linux kernel drivers to enhance multicast behavior and developed a Ruby-based testing framework - github.com/cmolt/multicast-perf-test.

DTU (Technical University of Denmark)

Kgs. Lyngby, Denmark

BSC. ENG. IT & COMMUNICATION TECHNOLOGY

Aug. 2013 - Jun 2016

- Developed a strong foundation in networking and internet protocols through theoretical studies and hands-on projects.
- Designed and built an in-home light automation system similar to Philips Hue, integrating Arduino and IoT concepts - github.com/cmolt/arduino-rgb.
- Bachelor's thesis: *High-Precision Timing in Mobile Fronthaul Networks*. Implemented the Precision Time Protocol in Ruby and C to test and optimize timing accuracy - github.com/cmolt/ruby_ptp.

Technical Education Copenhagen

Ballerup, Denmark

DATA TECHNICIAN

Oct. 2008 - Jul. 2013

- Nominated for an honorary scholarship for academic excellence and technical contributions.
- Final project: Developed an OpenVPN wrapper for P2P VPNs behind NAT, integrating UPnP-IGD, NAT-PMP, and UDP hole punching - github.com/cmolt/punchVPN.

Talent programs

Huawei: Seeds for the future

Beijing/Shenzhen, China

SELECTED STUDENT

Jul. 2016

- One of 10 students selected nationwide for Huawei's global talent program, representing Denmark.
- Participated in an immersive learning experience in China, gaining hands-on exposure to fiber-to-the-home technologies.
- Collaborated with international peers, developing cross-cultural teamwork and technical problem-solving skills.

Course details

Telecommunication Software Design

Daejeon, South Korea

KAIST (KOREA ADVANCED INSTITUTE OF SCIENCE AND TECHNOLOGY)

Fall 2017

- Developed and implemented data link, and network layer protocols.

Software-Defined Networking (SDN)

Kgs. Lyngby, Denmark

DTU (TECHNICAL UNIVERSITY OF DENMARK)

Spring 2017

- Designed and deployed network services using the Software-Defined Networking (SDN) paradigm using OpenFlow.

Introduction to Mobile Communication

Kgs. Lyngby, Denmark

DTU (TECHNICAL UNIVERSITY OF DENMARK)

Fall 2015

- Studied data transmission techniques for 4G/LTE and emerging 5G technologies.

Publications

Caching at the Mobile Edge: a Practical Implementation

Kgs. Lyngby, Denmark

IEEE ACCESS

2018

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

Volunteer

Various Projects

OPEN-SOURCE CONTRIBUTOR

- Contributed bug fixes, and documentation updates to multiple OpenSource projects.
- Developed improvements for Go/Golang WiFi support on the Raspberry Pi Pico (github.com/soypat/seqs), and supported in debugging various DHCP protocol implementation issues.
- Enhanced Ruby networking documentation with clarifications and fixes.

References

References can be provided by request.