

SOFTWARE ENGINEER · TELECOMMUNICATION

Toronto, ON, Canada

☆ www.cmol.me | ② cmol | ☐ lensboel | № lensboel

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

Skills_

Programming Ruby, Go/Golang, Python, 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, CCNA, CCNP

Experience

Lenbrook International Pickering, ON, Canada

SOFTWARE ENGINEER

Re-organize customer project and push to successful delivery driving up customer integration
 Develop new protocol definitions for internal and external M2M communication

- Redevelop legacy Perl code into Go/Golang along side transition mechanisms for bitesize introduction
- Introduce CI and coding standards across organization, especially for Go/Golang projects

Zeuxion ApS Værløse, Denmark

SOFTWARE AND FPGA DESIGN ENGINEER

Sep. 2018 - Jun. 2021

Jul. 2021 - current

- $\bullet \ \ Consultant\ work\ for\ third\ party\ companies,\ internal\ education\ and\ DevOps.$
- 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

 ${\tt LINUX\,DevOps\,and\,system\,administrator.}$

Aug. 2013 - Jun. 2018

- $\bullet \ \ \textit{Managing automation of networks, virtualization, storage and Linux/BSD environments.}$
- 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)

Kgs. Lyngby, Denmark

MSc. ENG. TELECOMMUNICATION

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/cmol/multicast-perf-test.

DTU (Technical University of Denmark)

Kgs. Lyngby, Denmark

Aug. 2013 - Jun 2016

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/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*.

Ballerup, Denmark

Data Technician 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/cmol/punchVPN.

Talent programs

Huawei: Seeds for the future

Beijing/Shenzhen, China

SELECTED STUDENT 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

Daejeon, South Korea

KAIST (KOREA ADVANCED INSTITUTE OF SCIENCE AND TECHNOLOGY)

Fall 2017

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

Compiler design Daejeon, South Korea

KAIST (Korea Advanced Institute of Science and Technology)

Fall 2017

Designing and implementing C compiler and run-time interpreter.

Software designed networking

Kgs. Lyngby, Denmark

DTU (TECHNICAL UNIVERSITY OF DENMARK)

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

Spring 2017

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

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/cmol for details.

References

References can be provided by request.