

SOFTWARE ENGINEER . 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, realtime network synchronisation, software development, OpenSource, network protocols, multicast networking, and data mining. Good theoretical background, but not afraid of practical work. Works great independently as well as in teams. Social and outgoing.

Skills

Programming Ruby, Python, C, C++, Java, Bash, Perl, Socket programming, REST, SQL

Code management Git, Gitlab/Github, Jenkins, Jira, Crucible

DevOps Docker, Vagrant, Ansible, Puppet **Frameworks/SDK** Ruby On Rails, Android, Sinatra, Flask

Languages Danish, English

Other In-depth network protocol knowledge, mobile networks and backhaul, Advanced Linux administration, CCNA, CCNP

Experience

Zeuxion ApS Værløse, Denmark

SOFTWARE AND FPGA DESIGN ENGINEER

Sep. 2018 - current

- Software consultant work for third party companies, internal education and DevOps.
- Developing C++ applications for high speed network testers running on an embedded ARM Linux platform. This work is done in the customers large C++ codebase, and in close collaboration with their agile teams. I have introduced several successful features to help porting applications between platforms, making the product portfolio larger and encouraging code reuse, while also easing the introduction of new features.
- · Team lead for internal Python project using REST APIs for gathering real time information from network equipment.
- · Starting and running a successful series of internal education sessions for improving technical and collaborative skills of co-workers.
- · 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 SYSTEM ADMINISTRATOR.

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.

Education

DTU (Technical University of Denmark)

Kgs. Lyngby, Denmark

Aug. 2016 - Jun. 2018

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/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.
- 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 qithub.com/cmol/arduino-rqb.
- 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 *qithub.com/cmol/ruby_ptp*.

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: OpenVPN wrapper for P2P VPNs behind NAT with UPnP-IGD, NAT-PMP and UDP hole punching github.com/cmol/punchVPN.
- Internship at Fab:IT Aps.

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.

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.

Projects

SOWA Sound Copenhagen, Denmark

 CO-FOUNDER
 2017-2019

Took part in founding the startup creating low latency wireless speakers for everything from conferences to live music. Designed early version of the wireless communication for minimal viable products and funding pitches. https://sowasound.com/

DNSMessageToronto, Canada

https://github.com/cmol/dnsmessage

2021

Ruby library for parsing and building DNS messages for use in custom DNS servers.

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.