



Florian Knorn

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Education / Qualifications

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| 2017 | “Aspirant” (Internal Leadership Development Program)
IP-Only AB, Sweden |
| 2017 | RIPE LIR + RIPE Database
Official RIPE Network Coordination Centre Training, License LDB20170003 |
| 2016 | JNCIA (Juniper Networks Certified Associate - Junos)
Official Juniper Certification, License JPR00262088 |
| 2014 | CCENT + CCNA (Routing & Switching)
Official Cisco Certification, License CSC012675245 |
| 2011 | Doctor of Philosophy (Dr.)
Thesis: “Topics in Cooperative Control”
National University of Ireland, Maynooth |
| 2006 | Engineer’s Degree (Dipl.-Ing.) with "summa cum laude"
Program: Systems Engineering and Technical Cybernetics
Otto-von-Guericke Universität, Germany / University of Newcastle, Australia |
| 2001 | Abitur and Baccalauréat
Specialisation: “Série S”
Französisches Gymnasium Berlin, Germany |

Skills

- Leadership in modern, value-based companies
- Systematic tackling of problems
- Research and Development
- Computer Networking (Juniper, Cisco, Nokia / Alcatel-Lucent, Huawei, Fortigate, Extreme Networks, HP)
- Languages: German, English, French & Swedish (all spoken & written fluently)
- Fibre & copper network infrastructure
- Proxmox, pfSense, Nagios/Icinga2, CEPH, ansible, glusterfs, Apache2, git, HAProxy, SQL, OpenVPN, Vagrant,
- Javascript, HTML, PHP, Python, Bash
- Datacenter management
- Linux, Mac OS, Windows
- System administration
- Panoramic / VR photography

Employment History

2016 - 2019

IP-Only AB (Uppsala, Sweden)

ip-only.se

Network Specialist / Team Leader

Background

IP-Only is a leading provider of high-capacity fibre based data communication and datacenter services in Sweden. IP-Only owns and operates a high-capacity fibre network linking the Nordic capitals Stockholm, Oslo, Copenhagen and Helsinki to other European hubs such as Frankfurt, London or Amsterdam as well as Sweden's second and third largest cities Gothenburg and Malmö. In addition, it owns a Metro Area Network (MAN) in Uppsala and several other municipalities to provide an open, purely fibre based network for other service providers to deliver to triple-play services to end-customers. Furthermore, it operates several data centres supporting co-location, CDN and cloud based product offerings to corporate clients. IP-Only was founded in 1999 and in total well over 1 billion EUR has been invested in its network infrastructure. The company employs currently around 560 people with a EBITDA in 2018 of around 90 million EUR.

Key Responsibilities / Initiatives

- Team lead for a dozen network specialists in a company building on value-based leadership principles and emphasising initiative taking, passion, bottom-up innovation and team spirit in order to challenge the status quo of the market.
- Implementation and configuration of data communication services for IP-Only's business customers, such as L2/L3 services, as well as residential FTTx services, IPTV/VOD & open networks reaching SDU/MDU in various municipalities.
- Design and development of support tools and scripts to automate, standardise and facilitate internal processes and workflows, in particular relating to network configuration-generation, auto-provisioning and documentation-generation.
- Network design, development and troubleshooting, including tight interaction with customers for their new installations as well as 3rd-line support for business customers.
- Design and development of a documentation system "synthesis" platform to provide a one-stop shop overview of a given service / customer / piece of equipment — sourcing from all the various systems at once.
- Network documentation quality improvements by applying business-logic, convention based and cross-correlation based bulk corrections to existing datasets in the various documentation systems to ensure clean data to not only improve customer support and NOC operations, but also to make informed business decisions based on it.

2014 - 2016

Borderlight AB (Uppsala, Sweden)

borderlight.net

System Developer / Full Stack Developer

Background

Borderlight AB is a Swedish Telecom operator whose business idea is to design, deploy, operate and administer high-speed open network infrastructures for data communication that handle delay sensitive traffic and best-effort traffic in an efficient and secure manner while allowing different market players to share the secure, QoS assured infrastructure to increase their productivity and profitability. Today Borderlight works with business development and operations

of Metro Networks incorporating a powerful service platform for full triple-play services (Internet, IP Telephony, IPTV and video-on-demand).

Key Responsibilities / Initiatives

- Development of a new datacenter, from all things physical like racks, server hardware and electrical power systems to networking, virtualisation platforms, network storage cluster, provisioning, configuration and also monitoring and instrumentation of various services and platforms running in the datacenter and the virtual servers.
- Strong focus on high-availability and system redundancy in all aspects of the data center (power, storage, virtualisation, networking, cooling).
- Network security, multi-tiered firewalls and VPN services.
- End-customer service during on-call periods, troubleshooting and fixing a broad range of networking problems and general infrastructure incidents in fibre-optic networks.
- Support system development, in particular of a distributed monitoring system.
- Web portal development incl. building a trouble ticket handling system from scratch.
- Detailed documentation of all developments.

2012 - 2014

ResTech Pty Ltd (Newcastle, Australia)

restech.net.au

R&D Engineer

Background

ResTech provides innovative product development solutions in electrical and electronic engineering by offering clients unique access to experienced research and development personnel. Combining contemporary and fundamental knowledge with extensive expertise in a range of fields, ResTech offers product proof of concept experimentation, prototyping, pilot builds and pre-commercialisation activities, along with scientific consultancy and technical engineering. Established in 2004 as a collaboration between the University of Newcastle and Ampcontrol.

Key Responsibilities / Initiatives

- Industrial research and development work
- Voltage regulation strategies in power distribution as well as mining electrical networks
- Panoramic photography based asset management systems
- Web frontend development for a novel safety relay for variable speed drives (this product subsequently won the Australian Engineering Excellence Awards)
- Project management, high speed videography and data analysis for explosion tests (to simulate electrical arc faults)

2011 - present

Knorn Media

knorn-media.com / pano-guru.com

Founder / owner

Background

Knorn Media was a registered partnership started in Ireland to offer various multimedia services in Ireland, including web- and mobile app development, photography, videography and sound recording services. Today, as a registered sole proprietorship in Sweden, it provides consultancy and training services in the field of panoramic photography and virtual-reality applications.

Key Responsibilities / Initiatives

To name a few, conception, production and maintenance of two iOS Apps ("The Maynooth App" & "Maynooth Emergency"), panoramic photography and virtual tour creation, event pho-

tography, recording of various live concerts, filming and production of academic seminars, summer school course material as well as figure skating shows, creation of marketing materials (web design, posters, social media and video spots), etc.

2011 - 2012 **Hamilton Institute (Maynooth, Ireland)** hamilton.ie
Post-Doc

Background

The Hamilton Institute is a multi-disciplinary research centre within the National University of Ireland, Maynooth. The Institute seeks to provide a bridge between mathematics and its applications in information & communication technologies as well as biology.

Key Responsibilities

- Modelling dynamics of a suspension system for electric vehicles with in-wheel motor.
- Tutoring and course support of a control theory lecture.

2007 - 2011 **Hamilton Institute (Maynooth, Ireland)** hamilton.ie
PHD Student

Key Responsibilities

- Four years research as part of Ph.D. programme, initially focussing on anomaly detection in network appliances (Prof. D. Leith), then theory of positive systems, cooperative control and constrained consensus in multi-agent systems (Prof. R. Shorten).
- Applications included wireless sensor networks and fleets of electric vehicles.
- Additional responsibilities included tutoring of control theory course; video and audio recording of the Institute's seminars and subsequent development of a video recording and processing workflow.
- Continuation of research and tutoring work as post-doc.

2006 - 2007 **Technische Universität Berlin (Germany)** control.tu-berlin.de
Research Assistant

Background

The Technische Universität Berlin is a research university located in Berlin, Germany and one of the largest and most prestigious research and education institutions in Germany.

Key Responsibilities

Six months of research as well as teaching assistance; tutoring of introductory control theory labs; design and development of a new institute homepage.

2005 - 2006 **Daimler Research & Technology (Böblingen, Germany)**
Internship

Background

The (formerly) DaimlerChrysler Research & Technology centre in Böblingen, Germany, hosts a range of research groups for one of the world's largest and most innovative automotive companies.

Key Responsibilities

Six months internship working on the control of an active hydraulic suspension in Prof. Jens Kalkkuhl's vehicle system dynamics group.

2002 - 2004

Max-Planck-Institut (Magdeburg, Germany)

Research Assistant

Background

The institute in Magdeburg is the first institute of the Max Planck Society dedicated to the engineering sciences and is supposed to bridge the gap between basic research and industrial applications.

Key Responsibilities

Two years as a research assistant working on educational control experiments like the "high wire walker" and the "inverted triple pendulum" in the Systems Theory group of Prof. J. Raisch.

Patents

DE102006024366.8: "Device for the control of the forward movement of a vehicle"

Sole inventor of a concept that complements the traditional cruise control: Rather than keeping the car's speed constant (regardless of consumption), the invention keeps the gas consumption constant. This offers a number of advantages over the classic approach (in particular relating to fuel economy, consumption predictability, and driving comfort). Filed with Daimler Research & Technology.

Volunteering / Social Commitment

2015 - 2019, active member & vice-president Uppsala Skridskoklubb, Sweden

Uppsala Skridskoklubb offers a broad range of activities for children, adolescents and adults so that as many as possible get a chance to learn figure skating, at all levels, from novice to elite level. I contributed with regular board work, organisational matters, fundraising, and communication between coaches, parents and skaters. Furthermore I handled "anything technical" (such as web presence, accounts and systems, but also fully hands-on work during shows, competitions and other events with lighting and sound systems, as well as video recording and production, etc).

2013 - 2014, volunteer at the Mission to Seafarers, Newcastle, Australia

I helped out with general listening to the sorrows of, cheering up of and giving much needed hugs to seafarers, driving the minibus to get them on and off the vessels and into town, and also with some IT and systems administration for the computers provided at the Mission.

1999 - 2003 & 2012 - 2014, volunteer at AFS Intercultural programs

Having spent a year on a farm outside Christchurch, New Zealand, as part of AFS' intercultural student exchange program, I strongly believe in the huge value and life-changing opportunity

such an experience can be for young people. Since then, I volunteered for the organisation both in Germany and Australia (supporting hosted students, helping at various camps, etc.).

Scholarships

2003 - 2006, scholar of the “Studienstiftung des Deutschen Volkes”

The German Academic Scholarship Foundation is Germany's largest, oldest and most prestigious scholarship foundation. In line with its statutes, it supports "the university education of young people who, on account of their exceptional academic or artistic talents and their personalities, can be expected to make an outstanding contribution to society as a whole". The Studienstiftung is non-political, non-denominational and ideologically independent.

(Quoted from Wikipedia)

Scientific Publications

10 fully peer-reviewed journal and conference publications, all listed here [☞](#).

Referees / References

Jeanette Kumlemark Head of Planning, Network & Technology at IP-Only AB
My direct manager for most of my time at IP-Only. jeanette.kumlemark@ip-only.se

Johan Lundqvist COO of Borderlight AB
Colleague that I most closely work with back then. johan.lundqvist@borderlight.net

Tim Wylie CTO of Ampcontrol Pty Ltd
My manager back at ResTech together with whom I drove most of my research and development projects. tim.wylie@ampcontrolgroup.com

More available on request.

Florian Knorn

April 2019