

Martin Lundquist Hansen

Lead System Administrator

ABOUT ME

Experienced system administrator with a scientific background in theoretical and computational high energy physics. This combination makes me uniquely qualified for developing and implementing research infrastructure for other scientists. Currently working as the Lead System Administrator at the SDU eScience Center, where I am responsible for operating the HPC and Storage systems used for hosting several national services used by researchers and students throughout the country.

EXPERIENCE

SDU eScience Center, University of Southern Denmark

Sep 2019 - now

Specialist Consultant

- Automated the entire infrastructure configuration and deployment using Ansible, resulting in a more agile and stable environment.
- Responsible for managing a Linux environment consisting of around 200 servers.
- Full lifecycle management of multiple on-prem Kubernetes clusters, including security configuration and deployments.
- Management of traditional Slurm clusters used for scheduling batch jobs.
- Configuration of ethernet and infiniband networks, including BGP routing for ethernet and configuration of the subnet manager for infiniband.
- Extensive experience with operating and implementing enterprise storage solutions.

INFN, Università degli Studi di Roma "Tor Vergata"

Sep 2018 - Aug 2019

Postdoctoral Researcher

- Research related to non-perturbative calculations of hadronic observables using lattice simulations, in particular electromagnetic corrections and spectral densities.

Faculty of Science, University of Southern Denmark

Nov 2010 - Nov 2014

Web Developer

- Full-stack web development, using PHP and MySQL for the backend. Developed solutions for timetables, course descriptions, and study plans used by students and administrative employees.

EDUCATION

PhD, University of Southern Denmark

2014 - 2018

High Energy Physics

- Used the methods of Lattice Gauge Theory to study strongly coupled gauge theories. Gained considerable experience in code development for HPC systems, including MPI and OpenMP for parallelisation and CUDA for running on GPUs.

MSc, University of Southern Denmark

2012 - 2016

Physics

BSc, University of Southern Denmark

2009 - 2012

Physics and Applied Mathematics

Odense, Denmark

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[LinkedIn](#)

KNOWLEDGE

Programming Languages

C, Go, Python, Bash,
HTML, CSS, PHP, SQL

DevOps Tools

Docker, Ansible, Jenkins, Git,
GitHub Actions, Sphinx

Security and Compliance

CIS Controls, CIS Benchmarks,
GDPR regulations, ISO27001 compliance

Kubernetes Technologies

K3s, Helm, Cilium, CSI Plugins,
Device Plugins

Enterprise Storage Systems

Weka, Ceph, IBM Spectrum Scale,
Quantum ActiveScale

Networking

Ethernet, Infiniband, Topologies, IPv4 and
IPv6, Firewalls, BGP, VLANs, DNS, DHCP,
VRRP, PXE, VPN

Monitoring and Alerting

Prometheus, Alertmanager, Exporters,
Grafana, Grafana Loki, Alloy

Linux Distributions

RHEL, AlmaLinux, Ubuntu

Linux Technologies

FreeIPA, SELinux, cgroups, iptables, ufw,
nginx, ssh, postfix, keepalived, dnsmasq,
chrony, vsftpd, systemd, ...