

# KARL-ANDREAS TURVAS

## Systems Engineer

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## RELEVANT EXPERIENCE

### Python Developer & Linux Administrator

#### CERN (European Organization for Nuclear Research)

Feb 2022 – Ongoing Switzerland, Geneva

- Developing a Python library/CLI-tool/server that abstracts an overwhelming number of different CERN services via APIs.
- Automating configuration management, VM/Docker image and RPM package builds.
- Coordinating, migrating to modern development and automation workflows.
- Deploying GitLab Runners and Hashicorp Vault with Kerberos integration on Kubernetes.

### DevOps Engineer & Linux Administrator

#### TalTech High Performance Computing Centre

May 2021 – Jan 2022 Harjumaa, Tallinn

- Automated configuration management with GitLab CI and Ansible to increase sysadmin efficiency and infra reliability.
- Set up and configured Hashicorp Vault for internal credentials and secrets management.
- Provided secure solutions to requirements of current and to-be clients of the HPC Centre.
- Managed InvenioRDM-based containerized data repository on Nginx, Flask, Postgre, Elasticsearch.

### Chairman of the Board

#### TalTech Student Council of the School of IT

May 2021 – May 2022 Harjumaa, Tallinn

- Managed a board of 7 members of the non-profit organisation of nearly 200 members to be voice of IT students.
- Collaborated closely with TalTech, as well as Estonia's largest IT companies and associations alike to enrich the student life by organising educational and entertainment events.

### Homelab

#### Hobby project

Oct 2022 – Ongoing Home

- Running services on Nomad/Consul container orchestration stack.
- Using Debian based Proxmox distro as the hypervisor on DL380 Gen9.
- Virtual machines provisioned automatically using Terraform and Packer.
- 3D printer automation and internal DNS/DHCP on Raspberry Pis.
- All infrastructure configured by pull-mode Ansible.

## SKILLS



### Languages

English (CAE C2), Estonian (Native)



### Driver license

B, C, D



### Programming

Python, C/C++, Bash, Golang, HTML, CSS, PHP, Javascript, Assembly



### Hardware

RaspberryPi, Arduino, PC towers, Cortex-M, routers, servers, NASes, 3D printers



### Software

Git, GitLab, OpenStack, Ansible, Hashicorp products, Nginx, Docker, Kubernetes, Flask, Node.js, ReactJS, SQL, Kerberos, Zabbix, LaTeX, Blender, Office 365 Suite, Creative Cloud

## EDUCATION

### Bachelor's in Hardware Development and Programming

#### Tallinn University of Technology

Sept 2020 – Ongoing

## REFERENCES

Contacts available on request

### Lauri Anton

TalTech HPC Centre

### Andres Eek

TalTech Dean's Office at School of IT

### Thomas Oulevey

CERN