

# KARL-ANDREAS TURVAS

## Systems Engineer

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## PROFFESIONAL EXPERIENCE

### DevOps Engineer & Linux Administrator

#### TalTech High Performance Computing Centre

Feb 2023 – Present Estonia, Tallinn

- Modernizing Ansible based configuration management for clusters of CPU and GPU computes.
- Managing a internal Proxmox cloud with Packer, Terraform and Ansible.
- Developing GitLab CI solutions for automated testing and builds.
- Managing and improving Zabbix/Syslog/Loki based observability stack.
- Evaluated Harvester/Rancher cloud-native HCI for container, and VM workloads.

### Python Developer & Linux Administrator

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

Feb 2022 – Dec 2022 Switzerland, Geneva

- Developed a Python library/CLI-tool/server that abstracts an overwhelming number of different CERN services via APIs.
- Automated configuration management, VM/Docker image and RPM package builds.
- Deployed GitLab Runners and Hashicorp Vault with Kerberos integration on Kubernetes.

### DevOps Engineer & Linux Administrator

#### TalTech High Performance Computing Centre

May 2021 – Jan 2022 Estonia, Tallinn

- Automated configuration management with GitLab CI and Ansible.
- Set up 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 Estonia, 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.

## GENERAL

**Languages**  
English (CAE C2), Estonian (Native)

**Driver license**  
B, C, D

**Hobbies**  
10K Obstacle Runs, Photography, Writing, RPG Tabletops

## EDUCATION

### Bachelor's in Hardware Development and Programming

#### Tallinn University of Technology

Sept 2020 – 2024 (Gap year at CERN)

## REFERENCES

#### Thomas Oulevey

@ CERN

✉ Contact available on request

#### Lauri Anton

@ TalTech HPC Centre

✉ Contact available on request

#### Andres Eek

@ TalTech School of IT

✉ Contact available on request

## OTHER EXPERIENCE

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Homelab

### Hobby project

📅 Whenever I find time!

📍 Home

- HashiCorp Nomad Container Orchestration Cluster
- Family Picture and File Cloud Service
- Prometheus, Grafana, Loki Monitoring
- Home Wireguard VPN
- Selfhosted services and gameservers
- Ansible, Packer, Terraform IaC
- MkDocs Material Documentation
- 11ty Personal Site
- Obsidian Second Brain Notes Site

## SKILLS

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### > Programming

*I love systems programming, but mostly scripting for sysadmin.*

**Systems:** Assembly, C/C++, Rust

**Scientific:** Python, MATLAB

**Scripting:** Bash, Go

**Web:** HTML/CSS, PHP, Javascript

### 🔧 Hardware

*Your cable management better be organized and pretty!*

**Servers:** Raspberry Pi, HP, Supermicro, Fujitsu

**PCs:** Building gaming computers in different form factors

**Controllers:** Arduino, ARM Cortex-M

**Switches:** TP-Link, Extreme

**NAS:** Synology

**3D Printers:** Anycubic

### 📄 Software

*Motivated by trying new things and doing them properly.*

**Collaboration:** Atlassian

**Version Control:** GitLab, GitHub, git

**CI:** GitHub Actions, GitLab CI/CD

**On-Premise Cloud:** OpenStack, Proxmox

**Off-Premise Cloud:** AWS

**Configuration Management:** Ansible, Salt, Puppet

**IaC:** Packer, Terraform

**Containers:** Docker, Podman

**Orchestration:** Kubernetes, Nomad, Consul

**Monitoring:** Zabbix, Nagios, Prometheus, Grafana

**Logging:** Rsyslog, Loki

**Documents:** Overleaf, LaTeX, Office365, Google Docs

**Media:** Creative Cloud, Blender

**AI/ML:** Stable Diffusion, YOLO

**Web:** React, SSGs

## MORE ABOUT ME

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### Active

4-day workweek is important to me to balance time around personal projects, volunteering, and close ones



### Night Owl

I prefer late nights and mornings



### Team player

Socializing and working together gives meaning



### Leader

I tend to take the lead if I can make a difference



### Context switcher

I like working on 2-3 projects at once



### Organizer

Love for automation, reproducibility, and documentation



### Teacher

Delivering clear and concise instruction with patience



### Top-Down Thinker

Filtering the unnecessary for effective problem-solving and decision-making