

## EXPERIENCE

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- **CDN77**

*Streaming & Operations*

Prague, CZ

June 2024 - now

- ▶ Taking care of hundreds of servers running a low-latency video streaming stack.
- ▶ Writing and deploying Ansible playbooks.
- ▶ Monitoring for and resolving performance and availability issues.
- ▶ Developing scripts and tooling, mainly in Rust, Python and Bash.
- ▶ Managing virtual machines using Proxmox VE.

## EDUCATION

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- **Faculty of Information Technology, CTU**

*Ing. Computer Systems and Networks*

*Bc. Information Security*

Prague, CZ

June 2022 - now

- ▶ **C, C++** : Basic programming courses with a focus on correct implementation of algorithms and data structures.
- ▶ **Algorithms, Graph theory** : Graph, tree, binary and binomial heap, AVL, Quicksort, dynamic programming, complexity analysis.
- ▶ **Computer system architecture** : Creation of a single-cycle CPU supporting a subset of RISC-V, programming in RISC-V assembly.
- ▶ **Operating systems** : Thread scheduling, synchronization, race conditions, deadlocks, memory management, storage and filesystems.
- ▶ **Unix administration** : User and group management, permissions, disk management, LVM, RAID, filesystems, networking, virtualization.
- ▶ **Computer Networks** : Subnetting & routing, IPv4 & IPv6, Cisco IOS, TCP, UDP, DNS, VLAN, NAT, RIP, BGP, OSPF.
- ▶ **Cryptography** : Types and modes of ciphers, Diffie-Hellman, AES, SHA, random generators, certificates.
- ▶ **Security** : Static and dynamic linking, stack and heap buffer overflow, secure coding practices.

## PROJECTS

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- **HKX2** : An open source toolkit for generating collision and navigation meshes for the Havok physics engine featured in The Legend of Zelda: Breath of the Wild. Features interop between Python interpreter running in Blender, .NET library and a C++ library.
- **artsciify** : A command line utility for creating ASCII-art from PNG images. Features a slideshow for multiple images and many character gradients, styles and filters. Written in C++.
- **rsynth** : Wave synthesizer with MIDI support. Features wave visualization terminal user interface and a YAML configuration file for instruments. Automatically reloads instrument file when changed. Written in Rust using JACK API.
- **tuxedo-drivers-nocompatcheck** : Fork of tuxedo-drivers Linux kernel module with a compatibility check removed and added support for an additional device. Packaged for the AUR.

## SKILLS

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**Languages** : English, Czech

**Operating systems** : Linux, Windows

**Programming/scripting languages** : Rust, Python, C, C++, C#, Shell

**Networking** : VyOS, OpenWrt, MikroTik RouterOS, Cisco IOS

**Virtualization** : Docker, Podman, qemu, libvirt, Proxmox VE

**Monitoring** : Prometheus, VictoriaMetrics, Vector, Grafana

**Automation** : Ansible, pyinfra

**Database** : PostgreSQL, etcd, MySQL

**Proxy** : Nginx, Envoy

**Frontend** : SvelteKit, Tailwind CSS