

Kleidi Bujari

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Skills

Languages: C, C++, Java, HTML, CSS, Javascript, Bash, Python, VHDL, Matlab
Technologies: GNU/Linux, Git, Proxmox, Docker, Microcontrollers, Circuit Design
Spoken: English, French, Albanian

Experience

Student Inspector

May - Aug. 2021, May - Aug. 2022

WSP Canada - Toronto Transit Commission (TTC)

Toronto, Canada

- Tested electrical designs for power consumption, cost efficiency, and viability with existing systems
- Participated in extensive reviews and adjustments for various engineering design pipelines
- Collaborated with industry experts to verify large scale electrical, mechanical, and structural work
- Automated several workflows for team members, decreasing time spent on reports by 40%

Projects

Genny | Linux-native hardware entropy based random string generator

C

- Customizable parameters with safe entropy and algorithm design allows flexible usage
- Minimal and fast, outputs 1,000,000 random characters to stdout in <1.0 seconds
- Automated build system and installation directly to system binary paths
- Standard output to maximize compatibility with other CLI programs by Unix pipe interface

General Purpose Processor | Custom 16-bit ALU core written in VHDL with Intel Quartus

VHDL

- Designed all components from scratch, including latch, 4:16 decoder, finite state machine, etc
- Implemented various operations: adding, subtracting, shifting bits, etc
- Displayed input/output on custom designed 7-segment displays
- Verified design of individual components with waveform simulations

Hypervisor-Based Server | Local server running several web-facing utilities and services

Proxmox VE

- Implements modern security features, including internal reverse proxy and certificates
- Runs critical services for many users outside of LAN with minimal downtime and proper backups
- Initial setup and maintenance of both QEMU based virtual machines as well as LXC systems
- Performs commit-automated CI/CD on several projects through docker, kubernetes, etc.

Personal Website | All-In-One website, blog, portfolio, and testing site for future software

SvelteJS

- Hosted on local hardware with self-provisioned certificates and automated build-on-commit
- Utilizes Cloudflare CDN for speed, serving cached responses to visitors, and hidden IP address
- Page caching and asset compression result in 0.45s to see content, 1s for full page load with all assets
- Firewall rules for filtering malicious requests, including Geo-IP blocking and deep-packet inspection

Education

Toronto Metropolitan University (Ryerson University)

Expected April 2024

BEng. Computer Engineering

Toronto, Canada