KLEIDI BUJARI

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EDUCATION

Toronto Metropolitan University

BEng. Computer Engineering

Expected 2024

Toronto, Canada

EXPERIENCE

WSP Canada - Toronto Transit Commission

May - August 2021, 2022 Toronto, Canada

Student Inspector

- Tested new electrical designs for power consumption, cost efficiency, and viability with existing systems.
- Participated in reviewing and adjusting large scale electrical and structural engineering designs.
- Carried out design plans by overseeing contractors, ensuring safe workplace practices and efficiency.
- Automated several key workflows, completely eliminating hours spent on certain reports.

Rams Robotics - Toronto Metropolitan University Electrical Team

September 2021 - Present Toronto, Canada

- Designed custom PCB for STM32 micro-controller with support for flashing via JTAG and ST-LINK.
- Improved design with crystal oscillator clock source distributed across various components.
- Used EasyEda to synthesize PCB layout with optimized trace routing, and component footprints.

PROJECTS

Mirrorlist Generator — Fetches a list of Arch Linux package mirrors to filter based on user input. Sorts and outputs formatted data from 1MB of JSON data in milliseconds using modern Rust libraries.

Personal Website — Built a pre-compiled, client-side rendered site using SvelteKit and Tailwind CSS for a custom designed UI. Makes use of image and transport optimizations to keep initial load under 400kB and proxied through Cloudflare CDN for additional security benefits.

Kernel Module — Wrote a basic module compatible with Linux that outputs debugging info to kernel ring buffer for use with personal scripts and other projects.

Random String Generator — Generates a cryptographically secure random alphanumerical string optimized for Unix command line and piping. Supports user input for adjusting output and prints 1,000,000 random characters in a second.

Homelab Server — Created a Proxmox VE Hypervisor running virtualized and containerized services such as OPNsense router with custom firewall rules, Docker and Kubernetes, reverse proxy with automatic certificates, CI/CD scripts, WireGuard VPN, and more.

General Purpose Processor — Designed a 16-bit ALU core with Intel Quartus II and logic written in VHDL. Implemented components such as latch, 4:16 decoder, finite state machine, and 7-segment display output to perform basic operations including adding, subtracting, and multiplication through bit-shifting. Tested with waveform simulations to ensure system stability.

Multistage Amplifier — Designed a low-voltage AC signal amplifier with 50x gain using a multi-stage BJT layout alongside resistors and capacitors while minimizing power draw and theoretical cost.

SKILLS

Languages	Rust, Typescript, C/C++, Lua, HTML/CSS, Python, VHDL, MATLAB
Technologies	Linux, Git, Docker, SvelteJS, Proxmox, Arduino, Embedded Systems, Analog Circuit Design
Spoken	English, French, Albanian