

Natanel Roizenman

Computer Engineering Student

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Languages

C++
VHDL

C#
SQL

Java
Python

JavaScript
MATLAB

Tools

NodeJS
Microsoft Office Suite

Git
Trello

Jira
Windows

Visual Studio
Linux

Professional Experience

Technical Architect and Developer, *Bialik Hebrew Day School*

Toronto, Ontario

Jun 2019 – present

- Optimized security badge system by designing an Electron-based JavaScript applet using NodeJS, **achieving a 95% reduction in processing time and saving 15 hours per week.**
- Improved management of 1200+ Google domain users and devices by developing custom scripts and extensions using Google Apps Script, **decreasing IT department workload by 30%.**
- Replaced expensive CMDB with a custom Python script that synchronizes data between Freshservice and Google Admin Console via APIs, resulting in **\$5,000 annual cost savings.**
- Supported data-driven executive decision-making by **creating comprehensive reports using Python, pysqlite3, and MongoDB** for executive presentations.
- Ensured project continuity by providing remote software maintenance during university, contributing an average of four hours per week, **preventing potential downtime.**
- Spearheaded a large-scale computer upgrade project, successfully rebuilding 40+ desktops to provide **updated technology for the organization and increasing overall productivity by 15%.**
- Troubleshoot and resolved software-related issues for numerous clients daily, maintaining smooth operations across the domain and **reducing support tickets by 25%.**

Volunteer, *Hack the North*

Waterloo, Ontario

Sep 2022

- Contributed to the smooth operation of Canada's Largest Hackathon, **supporting 3,000+ participants.**
- Ensured site security by **overseeing a team of 10 fellow volunteers** and engaging with participants.

Projects

Portfolio website 

Mar 2023

Built a CLI-themed portfolio website using JavaScript and other relevant technologies, showcasing creativity and passion for programming while **displaying web development expertise and attracting 200+ monthly visitors.**

E-reader

Nov 2021

Built a custom e-reader by designing a device using a **Raspberry Pi Pico microcontroller**, writing firmware in **C++** to interface SD card reader and e-ink display using **SPI**, and assembling all components into a 3D-printed case.

Automated birdfeeder 

Sep 2022

Developed an automated birdfeeder using circuit schematics in **KiCad**, powered by an **STM32**-based microcontroller, and wrote code in **C++** utilizing **STM32Cube HAL** for efficient operation.

Aim-training game 

Nov 2020

Created an engaging aim-training game using **object-oriented programming (OOP)** principles in **Java** and implementing a user-friendly GUI with **Swing**.

Minesweeper in Google Sheets 

Nov 2022

Implemented Minesweeper in **Google Sheets** using standard formulas and **Apps Script**, showcasing creative problem-solving and technical expertise.

Other skills

Agile
Embedded systems

Object-oriented programming
Troubleshooting

Soldering
Wildlife photography

Prototyping
Russian (fluent)

Education

Pursuing BAsC in Computer Engineering, *University of Waterloo*

Waterloo, Ontario

Sep 2022 – Jun 2027