Natanel Roizenman Computer Engineering Student

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Languages

- C/C++
- Python
- Java
- JavaScript
- VHDL
- SQL
- Bash
- MATLAB

Tools

- Git
- Jira
- Visual Studio (Code and C++)
- Windows
- Linux
- Microsoft Office Suite

Other skills

- Agile
- Object-oriented programming
- Soldering
- Prototyping
- Wildlife photography
- Russian (fluent)

Professional Experience

Jun 2019 – present
Toronto, Ontario

IT Specialist, *Bialik Hebrew Day School*

- Identified an inefficient security badge system and workflow, developed an **Electron-based applet** in **JavaScript** using **NodeJS**, and successfully reduced time spent by over 95%.
- Streamlined management of 1200+ Google domain users and devices by writing scripts and extensions with **Google Apps Script**, resulting in reduced workload across the entire IT department.
- Eliminated the need for a costly CMDB by writing a Python script to sync data between **Freshservice** and **Google Admin Console** using their **APIs**, saving thousands of dollars annually.
- Enhanced executive decision-making by generating reports using **Python**, **pysqlite3**, and **MongoDB** for presentation to executives.
- Led a large-scale computer upgrade project by rebuilding 40+ desktops, ensuring up-to-date technology for the organization.
- Provided remote maintenance for projects part-time during university, ensuring seamless project continuity.
- Troubleshot systems for dozens of clients daily, contributing to smooth functioning across the domain.

2022
Waterloo, Ontario

Volunteer, *Hack the North*

- Contributed to the smooth operation of Canada's Largest Hackathon.
- Ensured site security by overseeing a team of fellow volunteers and engaging with participants.

Projects

Nov 2021

E-reader
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.

Sep 2022

Automated birdfeeder
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.

Nov 2020

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

Nov 2022

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

Education

Sep 2022 – Jun 2027
Waterloo, Ontario

Pursuing BASc in Computer Engineering, *University of Waterloo*