

# Natanel Roizenman Computer Engineering Student

✉ nroizenm@uwaterloo.ca ☎ (647) 542-2174 in nroize 🌐 nroize 📄 natanel.ca

## Languages

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

## Tools

- |                          |          |           |                 |
|--------------------------|----------|-----------|-----------------|
| • NodeJS                 | • Git    | • Jira    | • Visual Studio |
| • Microsoft Office Suite | • Trello | • Windows | • Linux         |

## Professional Experience

### IT Specialist, Bialik Hebrew Day School

Jun 2019 – present | Toronto, Ontario

- 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.
- Provided remote maintenance for projects part-time during university, contributing an average of four hours per week to ensure seamless project continuity.
- Led a large-scale computer upgrade project by rebuilding 40+ desktops, ensuring up-to-date technology for the organization.
- Troubleshoot systems for dozens of clients daily, contributing to smooth functioning across the domain.

### Volunteer, Hack the North

Sep 2022 | Waterloo, Ontario

- 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

### Portfolio website, "NatanelOS"

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 previous projects.

### 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       | • Object-oriented programming | • Soldering        |
| • Prototyping | • Wildlife photography        | • Russian (fluent) |

## Education

Pursuing **BASc in Computer Engineering**, University of Waterloo

Sep 2022 – Jun 2027 | Waterloo, Ontario