

# Annika Logarta

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annikalogarta.com

 annikalogarta  annikalogarta

## EDUCATION

University of Waterloo | Candidate for BSc in Computer Engineering - 3.8 CGPA

Sep 2023 – Apr 2028

## SKILLS

**Languages:** C/C++, Java, Python, Javascript

**Hardware:** Altium, KiCad, LTSpice, STM32, ESP32, Raspberry Pi, soldering, oscilloscope

**Software Tools:** React, Three.js, Node.js, Tailwind CSS, Keras, Jetson Nano, Jupyter Notebook, Google Colab

## PROJECTS

Vital Watch | STM32, C, I2C, USART, FreeRTOS

- Created a wearable device to gather and store vital sign data via **FreeRTOS**
- Developed C code for **STM32**, transmitting sensor data to display on an LCD via **I2C** and on a computer via **USART**

Moodify | Python, Keras, Matplotlib

- Trained a **neural network** utilizing **Keras** to identify human faces from photo input with 96% accuracy
- Classified faces into 6 basic human emotions with **53% accuracy** through fine-tuning batch sizes and epoch numbers

## EXPERIENCE

**Data Scientist** | Marimetrics – Remote

Jan 2024 – Present

- Researched for appropriate **MOSFETs** and **optoisolators** to incorporate into schematics
- Utilized **Altium** to design battery management system (BMS) carrier schematics for the car's electric battery
- Simulated PMOS turn-on characteristics in **LTSpice** and implemented

**Hardware Core Member** | Midnight Sun Solar Rayce Car Team – Waterloo, ON

Sep 2023 – Present

- Researched for appropriate **MOSFETs** and **optoisolators** to incorporate into schematics
- Utilized **Altium** to design battery management system (BMS) carrier schematics for the car's electric battery
- Simulated PMOS turn-on characteristics in **LTSpice** and implemented a **slew-rate limiter** to reduce inrush current
- Calibrated **MPPTs** by scaling the **solar input voltage** to the internal ADC range to ensure accurate measurements

**IT Assistant** | Moscrop Secondary School – Burnaby, BC

Sep 2021 – Jun 2023

- Conducted troubleshooting to pinpoint sources of technical issues as they occurred
- Assisted staff and students with Microsoft Office 365, Wi-Fi/Ethernet problems, and school website navigation

**Web Developer Contractor** | Independent – Remote

Jul 2020 – Dec 2020

- Developed and maintained **websites** for local businesses to help maintain an online presence during the pandemic
- Utilized **HTML**, **CSS**, and **Javascript**, and guided clients through purchasing domains and web hosting servers

## EXTRACURRICULARS

**Math Team** – Burnaby, BC

Jun 2014 – Jun 2023

- Wrote math contests, and achieved awards such as **Hypatia School Champion** (Apr 2022) & Euclid Honours (Apr 2023)
- Chosen as one of the 60 national participants for the 2022 Lloyd Auckland Invitational, hosted by CEMC and UWaterloo

**Filmmaker** – Burnaby, BC

Jan 2021 – Aug 2023

- Spearheaded 6 **self-initiated** projects with limited resources, creatively making use of available equipment and locations
- Short skit "Online Odyssey" showcased in 2021 online gallery hosted by the **Emily Carr University of Art + Design**

## INTERESTS

- Photography
- PC building
- Latte art
- Nice keyboards
- Ocean conservation