

# Samuel Krisetia

3rd B.A.Sc. Integrated Engineering

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## EDUCATION

### University of British Columbia,

Bachelor of Applied Science — Vancouver, BC | Sept 2019 - Present

## PROJECTS (Visit [https://lotaniikfirok.github.io/#\\_home](https://lotaniikfirok.github.io/#_home) for further detail)

### Synthesizer Glove — Group of 6

- ESP32 controlled glove using flex sensors and accelerometer/gyroscope to control a custom-designed sound system using HTML and Tone.js library.
- **My Role:** Focus on software functionality and UI. Utilizing Tone.js library and HTML to create a soundboard UI to work in tandem with the glove sensors.

### Tremor Stabilization Glove — Group of 6

- A glove to stabilize the hand of a person with Essential Tremors. Current design will utilize Myoware and accelerometer/gyroscope sensor readings fed into a machine learning algorithm to determine whether a tremor is occurring. If a tremor is occurring, a motor will spin a flywheel to utilize gyroscopic precession to stabilize the hand. This is in development.
- **My Role:** Currently obtaining sensor data using a prototype circuit. Focus is on understanding each component so that integration is possible.

### Line Following Robot — Individual

- Robot tuned to detect and follow a black line using IR sensors. Programmed on Arduino UNO and H-Bridge for speed control.
- **My Role:** Assembling electrical and mechanical components. Programming an algorithm to decide when and how to turn the robot.

### Pianobot Mechanical Co-Lead — [Open Robotics UBC Design Team]

- Robotic fingers and hands on a conveyor belt to play sheet music given to the microcontroller. Currently in the prototyping and development phase.
- **My Role:** Technical tasks include designing the mechanical components of the project such as the conveyor rail system and finger design. Mechanical sub-team lead tasks include delegating tasks and organizing integration with other sub-teams (alongside co-leads).

## WORK/VOLUNTEER EXPERIENCE

### Line Cook, Tokyo Kokoro Mazesoba —

Vancouver, BC | Aug 2021 - present

- Completed spontaneous tasks in an organized and calm manner
- Established a process to more efficiently prepare meals with co-workers

### Carpenter Assistant, QS Flooring & Stair —

Toronto, ON | Dec 2017 - July 2019

- Assembled various flooring materials along with underlayment
- Assisted in transportation of heavy materials and equipment
- Often worked long hours to finish jobs quickly and on time

## SKILLS

Solidworks  
Microsoft Office  
Hand/Power Tools

## PROGRAMMING

Python  
C++  
Javascript  
HTML  
MATLAB

## CERTIFICATIONS

Driver's License  
Basic First Aid with  
CPR A & AED  
CIFS Food Handler  
Certification

## LANGUAGES

English  
French  
(conversational)

## HOBBIES

Kendo, Hiking  
Piano, Guitar  
Cooking