

# VID SHARDA

## Summary

- Learned HTML, CSS, JavaScript and built my own website to help engineering students with practice assignments and exams
- Tested, debugged and implemented ultrasonic sensors with Raspberry Pi
- Built a portable Scanning Electron Microscope in 2 days with a piezoelectric disc, amplifiers and personally made vibration isolation system
- Used Python to create linear algebra solvers and simple encryptions and used MATLAB to model large data
- Created multiple projects and designs using SolidWorks and AutoCAD with mechanical movements, parts, and simulations with assemblies
- Worked in several group settings at hackathons in fast-paced environments and created projects together

## Projects

### KeyStone (Solid Works, Circuits, 3D Printing, Raspberry-Pi, JavaScript, Node.js) Feb. 2020

- The KeyStone connects to the KeyStone app to track packages, prevent unauthorized openings and remotely lock the safe, fully designed on Solid Works
- The locks were 3D printed and hooked up to a raspberry-pi with ultrasonic sensors and motors attached, while connected over Wi-Fi to an app made using HTML, CSS, JavaScript, and bootstrap.

### The Nano Scribe (HTML, CSS, Javascript) Dec. 2019 to Current

- Personal project made using HTML, CSS, and Javascript to help future Nanotechnology Engineering students with practice problems, course notes, and practice tests, restricted access to those with waterloo email

### Scanning Tunneling Microscope (Solid Works, Circuits, Laser Cutting) Mar. 2020 to Current

- Designed and built an STM in two days in a group to avoid the inadequacies of an optical microscope
- Designing and building a vibration isolation system using springs, magnets and laser-cut acrylic boards, while designing the apparatus on SolidWorks

### Solid Works Box Car (Solid Works) Dec. 2019

Worked in a team of 4 to design a boxcar with functioning steering mechanism and simulations on Solid Works.

## Work Experience

### Sports Club Soccer Coach · Coach Malton

Coached a group of 17 teenagers over the summer while engaging them in teamwork, communication, and motivating them to work hard. Had to handle requests from parents and players.

### North Park Eco Club · Treasurer Brampton

Hosted events such as an electronic waste drive to encourage proper waste disposal and was the treasurer for 3 years. Maintained reports, invoices, and had a full ledger of transactions.

### Math Tutor · North Park Secondary School Brampton

## Contact

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## Skills

### TECHNICAL SKILLS

Python

HTML

CSS

MATLAB

Solid Works

AutoCAD

Circuits

Microsoft and Google Suite

Photoshop

Machine Shop and 3D Printing

ArcGIS

VBA

Git and Github

Wet Labs

### SOFT SKILLS

Organization

Collaboration

Interpersonal

Public Speaking

Problem Solving

## Awards and Achievements

DECA Provincials · Apr. 2017  
DECA Top 10 Provincials

Won in the Marketing Team Decision Making category in a chapter with over a thousand members.

University of Waterloo · Dec. 2020  
Top 20 Program Ranking

## Interests and Hobbies

Astronomy

Sports · Basketball, Soccer and Cricket

Photography and Editing ·

Using Adobe Software such as Photoshop, Muse and Premier