

# Mo Abidi

BASc. Mechanical  
Engineering  
Computing Option

University of Waterloo  
2017 - 2023

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## Languages

C++  
Python  
HTML  
CSS  
JavaScript

## Tools

Git  
React

## Design

Figma  
SolidWorks  
AutoCAD  
GD&T

## Interests

Engineering Student Society  
Rock Climbing  
Soccer  
Sewing

## Experience

### OrganOx Limited Summer 2021

#### Biomedical Engineer

- Engineered improvements to the *metra* normothermic perfusion device, which keeps human livers alive outside of the body by circulating blood and nutrients through it
- Designed and coded electromechanical system and firmware to simulate effects of breathing-induced motion on livers undergoing perfusion on the *metra*
- Implemented and tested system on porcine liver, resulting in significant reduction in cell death

### Rockwell Automation Winter 2020

#### Supply Chain Engineer

- Coded scripts to pull raw data from internal databases and automatically update daily production informatics, enabling part acquisition team to meet production needs 15% faster
- Managed project to develop VBA and Power BI tools to track parts shortages and prevent delays in production

### Bombardier Aerospace Summer 2019

#### Logistics Engineer

- Eliminated losses of \$10,000/month by developing programs to track part movement and prevent losses
- Reduced aircraft production cost by \$20,000 by streamlining assembly line procedures

### Toyota Motor Manufacturing Cambridge Fall 2018

#### Quality Control Engineer

- Solved persistent defect in Lexus RX350 front radar to improve pedestrian detection
- Performed data analysis to audit engineering and assembly processes, and isolate root cause of defect
- Redesigned vehicle radar mount in CAD and tested real-world effectiveness, resulting in 80% drop in defect rate

## Projects

### Hack the North 2020++ Winner

#### Audio Engineering Tool

- Built winning web app based on Spotify API enabling users to create custom song mashups
- Splitting songs into individual tracks (bass, lead guitar, etc.) and allowing users to easily combine them with a simple UI
- Worked with MySQL, Flask, Python, Google Cloud Platform, Nginx, Spleeter, Pydub, JavaScript, HTML, and CSS

### Capstone Design Project

- Worked in collaboration with Christie Digital Systems to design and prototype innovative LCD panel array mounting system
- Successfully designed, verified, and tested system, resulting in project grade of 91%

## Coursework

- BASc. in Mechanical Engineering with Computing Option from the University of Waterloo
- Completed coursework covering Data Structures & Algorithms, Control Systems, Interface Design, Computer Networks, Artificial Intelligence
- Completed coursework covering Solid Mechanics, Thermodynamics, Fluid Mechanics, Transportation Engineering, Sports Engineering, and Biomedical Rehabilitation Engineering