

# CONNOR

## SWEET

2A MECHATRONICS  
ENGINEERING  
STUDENT

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### » SKILLS

LANGUAGES	TOOLS
C++	Git
C	Bash
C#	Node.js
Arduino	MS Bot Framework
Processing	Solidworks
VB.NET	AutoCAD
Javascript	ROS
SQL	MS SQL Server
Java	Agile Scrum
	Linux
	GD&T
	MATLAB
	Vim

### » EDUCATION

UNIVERSITY OF  
WATERLOO

Candidate for  
Bachelor of Applied  
Sciences:

Mechatronics  
Engineering

- Received certification to operate the band saw, drill press, milling machine and lathe
- Elected Mechatronics Class Representative for the 1A term
- Member of the Waterloo BioMechatronics Team

### » EMPLOYMENT

#### THE CO-OPERATORS

Robot Process Automation Developer

April 2018 to Aug. 2018

- Created chat-bot using MS Bot Framework in Node that receives XML input to prompt questions and validate user response type, brought bot to UAT
- developed web-service to store data on endpoints and API to interact with MS SQL database
- Wrote VB.NET script to pull information from server and populate internal systems on Guidewire and Oracle frameworks.

### » PROJECTS

Line Following Music Player - Zero Robotics Competition

- Constructed an Arduino-controlled cart which plays music corresponding to the colour shade read by a colour sensor
- Fabricated circuit layout on aluminum chassis to properly distribute weight
- Designed and implemented circuit consisting of R2R bridge and motor controls
- Competed as part of a four person team in the UW Zero Robotics Competition

RobotCMajor - Guitar Playing Robot

- Designed, created and tested a robot able to plot and strum power chords on acoustic guitar
- Took a leading role in programming the robot using multiple threads to optimize play time and improve sound quality
- Designed chassis for robot including a strumming arm and a gantry system allowing 3 dimensional movement
- Wrote driver tasks for each function to test functionality and efficiency of the code

First Robotics Competition Entry - UW Robot in 3 Days

- Worked alongside a team of 20 in developing a working mechatronic system over the course of 72 hours to take part in the annual First Robotics Challenge
- Programmed subsystem functionality for object intake mechanism and climbing mechanism
- Mapped robot functionality to available buttons and axes on remote controller
- Machined aluminum claw components for grappling

Mars Rover - University Rover Competition Entry

- Working as part of the University of Waterloo Robotics Team to develop an autonomous rover to compete in the competition
- Using ROS to develop autonomous path-finding scripts to locate objects within a 5-10ft vicinity from a provided GPS coordinate

Eagle Eye - EngHack 2018

- Created portable Arduino-powered audio-movement sensor
- Wrote Processing script to receive serial data from microcontroller and post data to website
- Ranked one of the top 15 hacks in EngHack 2018
- Winner of the Wolfram Challenge