

# Charlie Shields

34-10525 83 ave. NW, Edmonton, AB T6E 2E1  
587-404-9904 | [cshields@ualberta.ca](mailto:cshields@ualberta.ca)  
[www.charlieshields.ca](http://www.charlieshields.ca)



## Engineering at Alberta

### UNIVERSITY OF ALBERTA - ACADEMIC & CO-OP STATUS

#### **Mechanical Engineering, BSc Co-op**

Cumulative Grade Point Average  
Completed Academic Terms  
Completed Co-op Work Terms  
Availability Starting May 2021

Class of 2023

3.34/4.0

5 of 8

2 of 5

8 months

### TECHNICAL SKILLS

**Design:** SOLIDWORKS, Revit, Fusion 360, Blender

**Programming:** C#, JavaScript, Python, MATLAB, HTML/CSS, C++, Arduino

**Equipment:** Hand, pneumatic, and power tools, oscilloscope, multimeter, automotive diagnostic scan tools, MIG welder, ARC welder, Oxygen-Acetylene torch, Raspberry Pi

**MS Office:** Word, Excel, Powerpoint

### PROJECT EXPERIENCE

#### **AR/XR for Experiential Learning**

Oct 2020 - Dec 2020

University of Alberta

- Team was tasked with exploring possibilities of using Augmented Reality as a teaching resource
- Researched several homegrown and outsourced solutions
- Defined a workflow for a mixed homegrown/outsourced process
- Introduced a pilot application with strong long term growth potential to the Faculty of Engineering
- Produced detailed documentation to allow for anyone to create experiences

#### **MECE 260 Labyrinth Speed Challenge**

Sept 2019 - Dec 2019

University of Alberta

- Group was tasked to build a car out of supplied materials to compete in a timed competition
- Placed fourth overall out of twenty-three
- Successfully met all due dates of the competition
- Managed a team of six students
- Ensured that all report submissions were of high quality
- Built long-lasting positive relationships that contribute to my current academic success
- Collaborated a schedule for our team to effectively manage time and progress

### WORK EXPERIENCE

#### **Simulations Designer, Curriculum Developer**

June 2020 - Dec 2020

University of Alberta

- Worked on two self supervised remote teams
- Undertook a project to introduce Augmented Reality experiences as a learning tool
- Created asynchronous content for various engineering courses
- Proficiently utilized various software to create AR experiences, lecture videos, interactive examples, etc.
- Attended weekly meetings to discuss team progress with supervisors

## **WORK EXPERIENCE (continued)**

- Prepared bi-weekly presentations to outline all project progress
- Made use of team management software to stay organized and simultaneously complete multiple tasks

### **General Manager, Automotive Service Technician**

Dec 2014 - July 2016

Cap-it Genuine Truckware, Red Deer, AB

- Managed a four person team
- Sold and installed aftermarket vehicle accessories
- Ensured that every install was performed to the highest standards
- Worked diligently to meet promised completion times
- Planned stock orders to prioritize best selling products to be kept in store
- Performed inventory, shipping and receiving duties
- Maintained a schedule to organize daily workflow for the shop
- Dealt with many various local companies to outfit vehicles for fleets of various sizes
- Had kept strong communication with fleet managers ensuring that fleet vehicles were delivered as promised

### **Shop Foreman, Automotive Service Technician, Service Advisor, Bicycle Technician**

Sept 2006 - Sept 2014

Canadian Tire, Ottawa, ON

- Monitored all mechanical work performed on customers vehicles to ensure the highest standards were met
- Trained apprentice technicians to be thorough, efficient and perform work diligently on customers vehicles
- Prepared work orders and estimates for customers
- Consulted with customers to assist with prioritizing needed repairs, safety being the most important factor
- Diagnosed customer concerns and recommended appropriate repairs
- Completed and verified repairs on all makes and models of automobiles in the North American market.
- Aligned and adjusted all aspects of vehicles to meet manufacturers specifications
- Used time effectively to meet promised completion times

## **PROFESSIONAL AFFILIATIONS & CERTIFICATES**

Certified SOLIDWORKS Professional (CSWP) - SOLIDWORKS, 2020

Certified SOLIDWORKS Associate (CSWA) - SOLIDWORKS, 2019

Automotive Service Technician Red Seal Certificate - Jan 2012

## **AWARDS & SCHOLARSHIPS**

Red Deer Advocate Academic Upgrading Academic Award, 2018

Students' Association of Red Deer College - Academic Upgrading Excellence Award, 2018

Faculty Association of Red Deer College Award for Adult Development Programs, 2018

Sr Science Award, Fredrick Banting High School, 2006

## **LEADERSHIP AND INTERESTS**

- Active volunteer with Students for Canada, an affiliate of Canada Action
- Thoroughly enjoy tinkering with electronics, 3D printers, micro-controllers, etc.
- Fabricating and building with steel
- Staying up-to-date on current UAV technology
- Camping, hiking and summer road trips
- Enjoy cooking and always open to learning new methods and recipes