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| Souren Pashangpour  NEWMARKET, ON · 647-425-0952  Email: [sourenpashangpour@me.com](mailto:sourenpashangpour@me.com)  **EDUCATION** Mechatronics Engineering, Ryerson UniversitySeptember 2019 - Present  * Combined cumulative GPA of 3.9 as a third-year mechatronics engineering student.  High school Graduate, Richmond green secondary schoolJune 2019  * Honors all throughout highschool * CPR & First Aid Qualification |
| **EDUCATION** Mechatronics Engineering, Toronto Metropolitan UniversitySeptember 2019 - Present  * Combined cumulative GPA of 3.8 as a fourth-year mechatronics engineering student. * Dean’s list throughout completed semesters  High school Graduate, Richmond green secondary schoolJune 2019  * Honors throughout high school * CPR & First Aid Qualification |

### Experience

### May 2022- Current

## Engineering intern, Honda Canada

* Designing 3D printable jigs to ease the assembly of parts and improve the ergonomics of the process
* Quality control inspections on the finished Honda civics
* Line work, assembling Honda civic engines
* Design of reaction bars for DC tools
* Assisting other production zones in case of low manpower

### January 2017 - September 2021

## Technician, IDES Canada

* Programmed the manufacturing robot (FANUC), to drill steel faceplates and electrical boxes on a batch production scale.
* Designed an assembly to attach a plasma cutter to the FANUC robot to automatize the plasma cutting process, cut costs, as well as improve overall product quality and safety.
* Prepared and organized the workspace for the safe and efficient operation of the manufacturing robot.
* Upgraded workstations regularly with new tools, apparatus, and testing stations.
* Collaborated with the engineers and other technicians to cut down manufacturing times, by producing stock.
* Overlooked the assembly for R&D projects, as well as testing and data acquisition for the projects.
* In charge of maintenance and repair of the 3D printers.
* Assisted in marketing and finding potential customers using the product knowledge gained through experience in the company.
* Assembled and machined products from start to finish based on their electrical and mechanical part drawings.
* Calibrated, tested and fixed products, using software’s such as H-term, and Arduino IDE.

### March 2022 – present

## Research assistant, Toronto Metropolitan university

* Integrating leap motion trackers in the python into the Arduino environment
* Researching creating objects in 3D engines
* Creating a wearable mechanism that includes haptics and hand tracking to play an instrument in virtual reality
* Helping with the control of the server motors in the mechanism
* Finding an extracting coordinates and velocity of tracked objects

**2018 – 2019**

**Tutoring Services**

* Helped students get ahead in physics and mathematics.
* Using my communication skills, I had to convey the concepts of mathematics and Physics to students of different backgrounds and learning styles.

**PROJECTS**

## Sparbot prototype

### December 2021

* Led the design of a boxing sparing robot.
* Created CAD designs needed to make the design functional and to surpass some of the negative aspects of competing products.
* Managed the budget of the project and the resource allocations as it was done by a private request.
* Designed and outlines the sensors needed to allow the prototype to be automated.
* Designed the system using current sensors, infrared sensors, and servo motors with the help of the Arduino IDE.

## ball carrier prototype

### April 2021

* Collaborated in a team of 3 to design a mechanical arm that can be used to sort and transfer 3/4" diameter Styrofoam, plastic, and metal balls from a large container into smaller colour-coded boxes.
* Produced multiple concept designs and sketches whilst adhering to the design constraints and functional requirements outlined.
* Used SolidWorks to produce each component, the drawings, and the assembly. Including a BOM, along with part numbers, detailed drawings, dimensioning, and tolerancing. The complete assembly was also simulated in motion.
* Gathered the data required to carry out testing and further engineering calculations as well as reasonings and conclusions on all aspects of the design, and design processes.

## engineering stroller design project

### December 2021

* Produced the design for an ergonomic and affordable stroller, considering the different groups of people the product was going to be marketed towards in an extremely tight deadline.
* Collaborated with 5 team members to produce a 150+ page report including market research, ergonomics, explanations for design decisions, design iterations, and the conclusions made.
* Developed fictional personas based on market research and created very real use scenarios in which the product would be tested, which led to 10+ iterations of the design.
* SolidWorks was used to create each part, assemble the product, BOM, tolerancing, dimensions as well as provide a basis for calculating cost based on material required.

**Lake Temperature Programming Project**

**MARCH 2019**

* Utilized the array function in C to translate data files of six lake temperatures in the Geany coding software.
* Collaborated in a team of 4 members to create a report showcasing the usage scenarios, outputs, and inputs of the program.
* A function was created to compare the data to determine the averages, maximums, and minimum temperatures of each lake.
* The program would take the input from the user and display either the warmest or coldest day for each lake to help expand the data for future uses.

**Restoration of 1989 IROC-Z & 1967 TRIUMPH SPITFIRE (Ongoing)**

* Used diagnostic skills to repair parts
* Removed rust from the undercarriage of both vehicles
* Interior upgrades including flooring. radio system and horn (safety)
* Design of intake cover for spitfire
* Diagnosed malfunctions in the radiator fan circuit of spitfire
* Repair of the IROC’s trunk latch system and motor
* Brake disk and spark plug change for IROC
* Comprehensive fluid changes for Spitfire
* Replacement of radiator

**HOBBIES**

* **Body Building**

**-**A daily commitment made to self to instill discipline

* **3D printing**

-Using CAD software to make functional items for personal comfort

-Rapid prototyping in projects like Sparbot

* **Equestrian Competitions**

-English style riding, jumping

**SKILLS**

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| * Team player who will help others when possible. * Attentive and quick learner * Creative Thinking * 3D Printing * R&D Testing * C Programming * Proficient in the Microsoft software * Mechanically inclined * Intermediate knowledge and Experience in sensors and circuits | * Can adapt to different work ethics * Efficient in SolidWorks * MATLAB * Project Management * Procedure Writing * Proficient in Fusion 360 * Diagnosing problems * Confident in using hand and power tools * Knowledge of Arduino programming * Python |