**ARVIND RAMPERSAUD**

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**SUMMARY**

**Mechanical engineer graduate offering a strong foundation in manufacturing, computer aided designing (SOLIDWORKS and AutoCAD), and thermodynamic systems, with a team spirited drive for experience, creative problem solving, and troubleshooting skills.**

**EDUCATION AND CERTIFICATIONS**

**Ryerson University** 2012-2017

*Bachelor of Engineering in Mechanical Engineering*

**Leonardo College of Design**

*SolidWorks Advanced Applications Certificate* 2018

*AutoCAD 2D Certificate* 2017

**RELEVANT PROJECTS**

**Advanced Manufacturing Project – Create Elevator to Climb Vertical Pole with Limited Resources** 2017

* Used SolidWorks to design a 3D representation of the elevator to accurately gauge the weight of the object. Calculated rolling friction speed, needed torque and gears using the given motor
* Using Mastercam to generate code for a CNC machine to cut out assembly parts from MDF boards
* Build prototype completed track in less than 5 seconds

**Manufacturing Design Project – Product Design in Consideration of Manufacturing Process** 2017

* Deconstruct product into subassemblies, to determine, functional requirements, physical constraints, product characteristics, and usage scenarios
* Completed a thorough DFMA analysis implementing Boothroyd Dewhurst and Lucas Method assessments
* Conducted a failure mode and Effect Analysis [FMEA], Product Family assessment, and product design for Environment

**Thermodynamic Power System Design Project** 2017

* Economically viable trigeneration powerplant with an environmental analysis
* Iterative Powerplant designs using different arrangements of heaters, pumps, boilers, and turbines etc. for best efficiencies. As well as combustion analysis on varying fuels

**WORK EXPERIENCE AND COMMUNITY INVOLVEMENT**

All Railing Division of D.F.L Fabrication Ltd: *Shop Floor Assistant* 2016

* Use weld grinders to trim away and smoothen weld spots
* Using mechanical lifts to dunk metal pieces into large containers of paint
* Puncture and cut metal pieces by using drill presses and machine presses, and band saws

UPS Canada*: Delivery Employee* 2017

* Sort and deliver packages to different locations in a fast paced and orderly manner
* Maintain company’s customer focused reputation by being courteous and kind

**TECHNICAL SKILLS**

**Programming/Software:** SolidWorks, AutoCAD, MATLAB/Simulink, ANSYS, MS Office, Visio, MasterCam, DFM/DFA Boothroyd Dewhurst software

**Equipment/Other:** Vernier caliper, multimeters, DC motors, oscilloscopes, vice grip, band saw, drill press, machine press, Rockwell/Brinell Hardness testers, pendulum impact testing machine, GD&T, DFMA, FMEA