

Hamza Ali

916 Scarborough Golf Club Road | 416-606-0012 | hamza1.ali@ryerson.ca | References can be provided upon request

Skills

- SolidWorks (CAD)
- AutoCAD
- Microsoft Office
- C programming
- VHDL Coding
- Interpersonal skills
- Teamwork
- Time Management
- MATLAB
- Cyclone- II

Experience

- Technical Support** - Ryerson Rams Robotics (R3), Toronto Sep 2018 – Current
- Created a Rover with reconfigurable and reliable systems focusing on transmit high definition video feeds.
 - Implemented large bandwidth access points to transfer critical control transmission.
- Certified Intern** - Alghanim Industries (Kuwait) Jul 2017 - Sep2017
- Collaborated with Chevrolet and Honda to redesign car seats in regards to ergonomics and human factors.
 - Designed 3D models and assemblies in Solid Works.

Education

Bachelor of Engineering in Ryerson University, Toronto, ON, Canada 2016-2021
Mechanical Engineering, specializing in Mechatronics.

Projects

SolidWorks CAD Design

- Created a Trebuchet Design Project with the help of analysis techniques in stress, motion, and flow applications.
- Created an Acrylic Car using custom miter gears for power transmission.
- Redesigned a Human Powered Vehicle with understanding of human factors and ergonomic concepts using SolidWorks to construct prototypes within the given deadline.

Geothermal Power Plant Design

- Designed a power plant utilizing water as the working fluid with a modified cycle based on given initial conditions.
- Researched components such as boilers, pumps, condensers, valves and turbines that fit the design criteria of the cycle as well as function together as a system to match given conditions.

Digital Logic Circuits - VHDL for Sequential Circuits

- Used VHDL coding for combining circuits and storage elements. Made sequential circuits by implementing a Customized State Machine.
- Assigned all Input signals to any dedicated Input pins of the Cyclone- II, Recompiling the design by assigning all LED are High Active and the 7 segment displays are Low Active.

HVAC- Heating System Proposal

- Drew HVAC system and evaluated heating and cooling using informational model analysis.
- Installed compressors, evaporators, motors, ducts and piping; read and intercepted blueprints/diagrams

Volunteering and Extra Circulars

- Varsity Athlete** - Ryerson Rams Track and Field, Toronto Sep 2016 – Jun 2017
- Ran in many opens such as YorkU open, OUA championship, UofT open.
- Soccer Coach** – Durham Soccer League May 2016 – Aug 2016
- Coached children aged 12-15 at Durham Soccer League.