

RYAN HARRINGTON

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- Highly Experienced in CAD (Computer Aided Design) including SOLIDWORKS, Inventor and Solid Edge from 7 engineering Internships and involvement in two *FIRST* robotics teams.
- Proficient at designing parts for manufacturing (Lathe, Mill, Water Jet, 3D Printing, Sheet Metal and Laser Cutting) through hands on machining and job experience.
- Extremely comfortable in a rapid prototyping environment, designing and testing relevant, cost-effective prototypes to verify electro-mechanical designs due to 7+ years experience.

RELEVANT EXPERIENCE

TECHNICAL PROJECT MANAGEMENT

May 2022 – Aug 2022

TESLA

- Oversaw and managed all aspects of the creation of a multi-million-dollar manufacturing line including managing assembly issues, in house testing and onsite implementation.
- Managed resource allocation decisions among multiple teams, making difficult trade-offs and balancing priorities to ensure the most effective use of available resources.
- Compiled and finalized a list of parts valued at over one million dollars that were necessary to sustain project progress, then submitted list to procurement team for acquisition.

SYSTEMS DESIGN ENGINEERING

Sept 2021 – Dec 2021

ATS AUTOMATION

- Led the identification and definition of process requirements, risks, and design specifications for multimillion-dollar automation lines.
- Independently designed and executed test plans to identify and solve time-sensitive integration and R&D problems, routinely finishing ahead of schedule.
- Performed extensive cycle time analysis and simulations to validate concept feasibility, providing next steps and solutions.

MECHANICAL DESIGN ENGINEERING

Jan 2021 – Apr 2021

LUMENTUM

- Independently designed multiple manufacturing assemblies using Solid Edge, consisting of parts made by mill, lathe, 3D printer and sheet metal.
- Drafted drawings of designs and worked with vendors to find the most cost-effective method of manufacturing for different components.
- Personally machined and 3D printed parts to create multiple effective prototypes.

FIRST ROBOTICS MENTOR

June 2015 – June 2018, Sept 2019 – Present

TEAM 3683, TEAM 5406

- Mentored high school students through the design and assembly of a 150 lb robot including the teaching and implementation of fundamental engineering concepts.
- Effectively balanced 40+ hours of volunteer commitments on top of school commitments over a 4-month period.
- Lead the team to a competitive showing, ranking in the top 50 of over 3000 teams.

ADDITIONAL EXPERIENCE

- Completed four additional engineering co-ops at Centerline, Linamar, Tigercat and the University of Waterloo.

EDUCATION

Mechatronics Engineering Bachelor of Applied Science

2018-2023

TECHNICAL TOOLS

- SOLIDWORKS + PDM
- Inventor
- Solid Edge
- Abaqus/FEA
- Visual Basic/Excel
- Microsoft Office Suite

PRACTICAL SKILLS

- Electro-Mechanical Design
- Mechanical Drafting and GD&T
- 3D Printing
- Soldering
- Programming
- Laser Cutting
- Spot/Resistance Welding
- Lathe/Mill Machining
- Sheet Metal Design

PROJECTS

Puck Shooting Robot 2023

Designed hopper system to orient and deposit pucks sequentially.

R.O.V. 2022

Designed an R.O.V. to traverse an all-terrain course finishing second amongst class.

Chess Clock 2021

Designed and programmed an Arduino controlled clock.

Light Pad 2021

Oversaw and managed design of light up pad device.

Measuring Device 2020

Designed and built a device to measure LEGO's within 0.015 in.

Resume Website 2020

Programmed a resume website from scratch.

Drink Mixing Robot 2018

Lead the design of a robot to produce mixed drinks based on user input.

Custom Quadcopter 2016

CERTIFICATIONS

SOLIDWORKS Professional
SOLIDWORKS Associate