Kyle Barie

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Education

Michigan Technological University — Houghton, MI
B.S. Mechanical Engineering with Manufacturing Minor — May 2016
Engineering Enterprise Concentration — GPA: 2.84

Engineering Project Experience

Michigan Technological University — Houghton, MI
Consumer Product Manufacturing Enterprise — September 2013 - Present
Assignment 1: To develop a new cost effective method of drying hops for small scale hops farmers
Methods:

- Refrigeration concept research lead
- Team brainstorming and research
- Designed tray style dryer for small-scale testing

Outcome: Currently developing two small scale systems to determine the best design for a full scale system.
Assignment 2: To improve performance of composite ice hockey sticks using nano materials
Methods:

- Mechanical design and build lead
- Researched various manufacturing methods
- Conducted coefficient of restitution testing on various materials and stick prototypes

Outcome: Designed and conducted preliminary testing on prototype nanoMAG Ice Hockey sticks.

Magna International – Intern — Novi, MI
Magna Seating – Advanced Engineering — May 2015 - August 2015
Assignment: To provide engineering support to Core Products and New Business Development departments
Methods:

- Measured and compiled data from a variety of tests using a digital data acquisition system
- Analyzed vehicle recliner discs using a Keyence 3D Measuring Macroscope
- Developed new, more efficient and consistent testing methods

Outcome: Conducted studies on various seating systems to provide data for the improvement of Magna recliner discs

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Tyco Fire Protection Products – Co-Op — Marinette, WI
ANSUL Tank Systems Manufacturing — June 2014 - December 2014
Assignment: To implement a new overhead conveyor powder paint line and improve production efficiency
Methods:

- Design by Autodesk Inventor & AutoCAD using proper GD&T
- Conducted tests of material transfer fixtures
- Team problem solving and FMEA

Outcome: Designed effective fixtures and solutions that solved ergonomic and production issues

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Michigan Technological University — Houghton, MI
Robotic Systems Enterprise — September 2010 – May 2013
Assignment: To design and build robotic systems to further STEM education at both High School and Collegiate levels
Methods:

- Mechanical design and build lead
- Started and mentored Dollar Bay and Hancock High School FIRST Robotics teams 3771 and 4363

Outcome: Designed and built a prototype for an autonomous underwater glider, currently undergoing testing for application in Great Lakes Research and a mechanically functional set of electronic scoreboards, with their corresponding supports.

Achievements

Michigan Technological University Dean's List — Fall 2015
FIRST Robotics World Champion — 2009 & 2010

Skills

Computer: Autodesk Inventor, AutoCAD, NX, SolidWorks, MATLAB, Simulink, Microsoft Office, Visio, and Project
Technical: Manual Milling and Lathe, Basic M&G Code, Controls, Additive Manufacturing (3D Printing), Basic Shop Skills

Other Work Experience

JJ's Wok N' Grill — Houghton, MI
Assistant Manager — April 2013 – Present

Campus Café — Houghton, MI
Team Member — September 2013 - April 2014