

Kyle Barie

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Education

Michigan Technological University
B.S. Mechanical Engineering with Manufacturing Minor
Engineering Enterprise Concentration

Houghton, MI
Expected Spring 2016
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

Seating – Advanced Engineering

May 2015 - August 2015

Assignment: To provide engineering support to Core Products and New Business Development departments

Methods:

- Analyzed vehicle recliner discs using a Keyence 3D Measuring Macroscopic
- Measured and compiled data from a variety of tests using a digital data acquisition system
- 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

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

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:

- Mentored Dollar Bay and Hancock High School FIRST robotics teams 3771 and 4363
- Mechanical Design and Build Lead

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

FIRST Robotics World Champion

2009 & 2010

- Mechanical Design and Build
- Solved difficult problems within very short time constraints

Skills

Computer: Autodesk Inventor, AutoCAD, NX (Unigraphics), SolidWorks, MATLAB, Microsoft Office, Visio, and Project

Technical: Manual Milling and Lathe, General Shop Knowledge, Basic M&G Code

Other Work Experience

JJ's Wok N' Grill
Assistant Manager

Houghton, MI
April 2013 – Present

Campus Café
Team Member

Houghton, MI
September 2013 - April 2014