

Thomas Kim

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Objective:

Full-time position in Mechanical Engineering

Education:

Worcester Polytechnic Institute (WPI), Worcester, MA (GPA: 3.18/4.00)

May 2020

Bachelor of Science in Mechanical Engineering

Bachelor of Science in Robotics Engineering

Related Courses:

Computer Aided Design, Computer Aided Manufacturing, Static Systems, Dynamic Systems, Stress Analysis, Embedded Systems, Control Engineering, Thermodynamics, Fluid Mechanics, Digital Circuit Design

Technical Skills:

Software: Microsoft Office (Word, Excel, PowerPoint, Outlook), SolidWorks, MATLAB, Photoshop, Git

Programming: Java, Python, C, C++

Manufacturing: Milling, 3D Printing, Laser Cutting, Woodworking

Experience:

Quality Engineer/Instrument Service Supervisor, Wyman-Gordon, Worcester, MA February – September, 2020

- Managed two unionized employees and verified the quality of daily work.
- Scheduled, planned and executed routine testing within different departments.
- Reviewed instrument calibrations and furnace calibrations to ensure compliance with government and customer specifications.

Mate, Helen H Deep Sea Fishing, Hyannis, MA

May – August, 2017 – 2019

- Led multi-day fishing trips, educated customers and accommodated them for the duration of their trip.
- Tasks encompassed periodic maintenance of the property and extensive mechanical work on boats consisting of engines, jets, and power systems maintenance and re-building.

Projects:

Major Qualifying Project (MQP), WPI

August 2019 – May 2020

- Collaborated on an interdisciplinary team of six students to design an autonomous driving RC car with modular sensor package to allow any 1/10th scale RC car to become self-driving.
- Built a Control Moment Gyroscope (CMG) on the 1/10th scale car to demonstrate a CMG can be applied to a larger vehicle such as a Mar's rover.

Unified Robotics II: Sensing – Term Project, WPI

March – May 2018

- Collaborated on a team of three to complete a project requiring a robot to autonomously navigate a randomly generated field and extinguish a candle flame, then report the location of the flame relative to the starting position.
- Designed a complete model of the robot in SolidWorks.
- Laser cut prototype parts out of plywood to allow for easy modifications and adjustments, and laser cut final robot out of polycarbonate for durability and accuracy.
- Utilized sensor fusion to accurately navigate the field, used a brushless DC motor to extinguish the flame, and a both of motor encoders and a time of flight sensor to determine the x, y, and z position of the flame on the candle.

Awards and Activities:

Eagle Scout, Troop 76, Boy Scouts of America, Simsbury, CT

June 16, 2015

Cheese Club, WPI

September 2017 – May 2020

FIRST Robotics Competition, Team 3464, Simsbury, CT

August 2013 – June 2016