

EDUCATION:

Bachelor of Science in Mechanical Engineering (Major)
Mathematics (Minor)
Minnesota State University, Mankato, Minnesota.

Graduated- December 2022**SKILLS AND QUALIFICATIONS**

Software: AutoCAD, DraftSight, CREO, Simulate, MATLAB, SolidWorks, Simulink, Office 365, MS Office, MS Excel

Communication/Organization: Quick learner, teamwork, self-starter, detail oriented, and customer service.

Technical: DFMA, GD&T, BOM, 3D-Print, FEA, ERP, root cause analysis, 5S, HVAC & ASHRAE standards.

Equipment: Solder, Drill Press, CMM, Brazing, lathe, mill, and Weld.

HVAC EXPERIENCE:

Treasurer, American Society of Heating Ventilating, and Air-Conditioning Engineers, Mankato Chapter

05/2022-12/2022

- Served as a treasurer in ASHRAE, Mankato Chapter to create a budget plan, report, and conduct fundraising activities.
- Planned events and work with guest speakers to plan for the timing of an event.
- Attended various conference organized by other chapters of ASHRAE.
- Conducted various workshops including the Revit workshop.

RELEVANT EXPERIENCE:

Mechanical Engineering Intern, Bombardier Recreational Products (BRP), St. Peter MN

May 2022- Aug 2022

- Worked in the Alumacraft Boat Company under the marine group of BRP.
- Applied lean manufacturing principles to improve the operations and apply DMAIC methodology to identify root cause and implement permanent solution.
- Assisted on projects to improve assembly processes to meet cost and quality requirement.
- Designed/Assembled parts in CREO and Solidworks and performed FEA to upgrade various machines.
- Worked closely with Engineers, technicians, and labors to meet the goal of manufacturing 17 boats per day.
- Worked with Quality Engineers to ensure the product fulfills quality standards, meet safety regulations, and satisfy client requirement.

Controls Design Engineer – Combat Robot (Senior Design Project)

Aug 2021 – May 2022

- Designed and build a combat robot to compete on the National Robotic Challenge combat robot beetle weight category and won a Bronze Award.
- Programmed Arduino, motor controller and ESCs to control the drivetrain and weapon of the robot.
- Made the detailed circuit diagram and block diagram to model the signal and current flow.
- Worked with other members to make detailed CAD design, perform FEA analysis, and fabricate every part in the lab.

Student Tech– IT Solutions Center, MNSU

Sept 2019 – Dec 2022

- Installed cameras, microphones, speakers, and Zoom PCs all over the campus classrooms and make a connection using an IP mixer to make sure they are all connected in a single system.
- Troubleshooted the problems in projectors, smartboards, and doc cam and fix them.
- Expert in creating, managing, escalating, and resolving Cherwell tickets by communicating with clients and staffs.

RESEARCH WORK:

Investigation of pulsed eddy current for multi-target non-destructive testing

Aug 2020-April 2021

- Investigated the potential of Pulsed Eddy Current (PEC) techniques for multi-target Non-Destructive Testing (NDT).
- Utilized COMSOL to simulate an experiment and LabVIEW for testing sensors and amplifiers.
- Fabricated parts using lathe, mill and vertical band saw for the setup of the experiment.
- Awarded \$2000 foundation grant from the Undergraduate Research Center to conduct the research.

PROJECTS:

Bicycle frame project: Designed a bicycle using CREO and performed FEA analysis to optimize mass.

2021

Angry Birds Game: Established MATLAB Program to obtain a solid understanding on how simulation works.

2021

Garage Door: Designed a Garage door using CAD software and determined its gear system selection, strength analysis, bearing selection including door speed to design opening mechanism.

2021

Automatic Fish Feeder: Programmed ARDUINO to design the automatic fish feeder which works with the command from phone Bluetooth.

Assembly Project: Hand measured the part using calipers to design in the CREO, 3D printed it and the Coordinate Measuring Machine (CMM) was used to verify the dimensions and tolerances of the fixture.

2019

Robot Powered Xylophone: Constructed wooden musical rail track of different frequencies, assembled using home supplies and did MATLAB coding to make Robot Powered Xylophone.

2019

Remote Control Car: Modeled battery powered remote-control car by fabricating the materials found locally.

2018

