Ritik Jamghare

98 Hoffman Street, West Haven, CT 06516
ritikjamghare@gmail.com
https://www.linkedin.com/in/ritik-jamghare/

(475) 287-3014

Summary

Passionate and result-driven Mechanical Engineer looking for full-time job opportunities to put forth theoretical knowledge in practical fields and to aid the organization.

Education

University of New Haven, *West Haven, CT*   May 2023
Master of Science in Mechanical Engineering   **GPA: 3.97**
Coursework: Heat transfer, CAE, Modern Manufacturing, Renewable energy, Finite element Analysis, Additive Manufacturing, Supply Chain Management

University of Mumbai, *Mumbai, India*   June 2021
Bachelor of Engineering in Mechanical Engineering   **GPA: 8.77/10.0**
Coursework: HVAC, Heat transfer, Fluid Mechanics, Machine Design, Vibration, Six Sigma, Database Management

Maharashtra State Board of Technical Education, *India*   June 2018
Diploma in Mechanical Engineering   **Percentage: 84.06/100**
Coursework: Thermodynamics, Fluid Mechanics, Renewable Energy, FEA, Cad Tools, Machine Tools, CNC programming

Skills

Software: AutoCAD, Ansys, SolidWorks, Fusion 360, PTC Creo, Adobe (Photoshop, Lightroom, Premiere Pro), Desktop CNC programming, Heat Load Calculation, Slicer Software's

Technical Work Experience

Larsen and Toubro Heavy Engineering (Powai, India), *Intern*   May 2017 – June 2017
• Monitoring, material handling, and planning project activity timelines in **ERP** (Enterprise Resource Planning) and **MRP** (Material Resource Planning) software.
• Updating BOM (Bill of Materials), adding dimensions and tolerances, and revising drawing sheets of several parts.

Rashtriya Chemical Fertilizers (India), *Intern*   June 2019 – July 2019
• Studying **Sulphuric Acid** plant layout, production process, and packing. Also, carrying out the overhaul of **Centrifugal Pumps** and Valves.

Nuclear Power Corporation of India LTD, *Intern*   Nov 2019 – Dec 2019
Placed in the Pressurized Heavy Water Reactor **(PHWR)** Department. Carried out stress analysis and seismic qualification of process water outlet piping from the D2O upgradation plant using K pipe software. The system was qualified, with stress in the limit, and met the requirements of ASME B31.1.

Research Assistant (University of New Haven, CT)   Dec 2021- Dec 2022
• Research project guided by Dr. Emon Omar Faruk to modify commercially available lost-cost filament-based 3D printer for **Direct ink writing** application. The developed system is being used to 3D print **electronics sensors** using **functional inks** and tests them under different load conditions.
• Designing a fixture to hold the syringes, bearings, gears, and motors using SolidWorks to mount on the X-axis gantry.
• Working with **FDM/ SLA 3D printers**, Desktop **CNC** machines, **lathe** machines, and various **hand tools** on the shop floor for manufacturing various parts for the modified 3D printer.

Grader (Mechanical Department, University of New Haven, CT)   Sept 2022- Dec 2022
• Grading lab reports, and assignments for Heat Transfer, Vibrations, and Mechatronics courses

Intramural Supervisor (Charger REC, University of New Haven, CT)   Dec 2021- Present
• Officiating Basketball, Volleyball, Badminton, Soccer, and 4v4 flag football games.

Relevant Projects

HVAC System Design for Commercial Building, *Undergraduate Capstone Project*   Aug 2020 – May 2021
• Project was divided into three parts starting with heat load calculations in accordance with the ISHRAE handbook, façade selection, and lastly HVAC system selection.
• Air flow simulation was carried out for one room in the building using CFD fluent in Ansys.

Solar Tracking Device, *Undergraduate Course Project*   Jan 2020 – Feb 2020
• Solar tracking system was made that kept solar panels aligned with the sun.
• Two Light-dependent sensors (LDRs) were used for detecting the light intensity and sending signals to the motors using a microcontroller for aligning the solar panels.

Design and Analysis of Rear Swing arm for prototype electric bike, MS *Course project*   *Aug 2021 – Dec 2021*
• Rear swing arm was modeled using SolidWorks and then imported into the Ansys workbench for Steady-state and modal analysis. There were three main objectives of the project 24.3 lbs. weight constraint and keeping stress under yield strength of material and safety margin above two.

Passive solar tracker (Helios Tracker), MS *Course project*   *Jan* 2022 – May 2022
• Designing the passive solar tracker system using SolidWorks. Using various hand tools, band saw, and soldering machine for joining copper tubes,
• Charging the copper tubes with **R134A** and testing the **prototype** outdoors in Sunlight and indoors using a halogen lamp.

Design of Robot Car, MS *Course project*   *Jan* 2022 – May 2022
• Design of chassis using SolidWorks to mount several parts like Arduino UNO, motor drivers, motor, and battery pack and then laser cutting the acrylic sheet as per the chassis design.
• Design the wheels using SolidWorks and then 3D print on the FDM 3D printer. Assembling all the parts and making connections with the Arduino UNO and motor driver. Arduino was coded to run the motor forward for a specific time to cover 100 meters stop and then run in the opposite direction for the same time.