

Subodh Babu Bhujel

Oxford, OH 45056

Email: Subodh.Babu.Bhujel@gmail.com

Mobile: +1(513)-603-0660

[LinkedIn](#)

[Portfolio](#)

Summary

- **Highly passionate engineer:** Proven track record of delivering impactful outcomes as a Mechanical Design Engineer and Service Engineer
- **Hands-on expertise:** Extensive practical experience in prototyping proven by the successful creation of an exoskeleton robot.
- **Technical proficiency:** Experienced in CAD/CAM software and CNC machining.
- **Eager to contribute:** Enthusiastically seeking opportunities to contribute effectively as a Mechanical Engineer.

Education

Miami University

Master of Science in Mechanical Engineering: GPA: 3.96/4.0

Tribhuvan University, Institute of Engineering

Bachelor of Engineering (B.E.) in Mechanical Engineering

Oxford, OH

Jan 2022-Present

Dharan, Nepal

2014-2018

Professional Experience

Department of Mechanical and Manufacturing Engineering, Miami University

Graduate Student Researcher

Oxford, OH

Jan 2022-Present

- **Introduced a novel 9 DOF human upper extremity exoskeleton rehabilitation robot:** Developed a detailed 3D CAD model and prototype of the robot.
- **Manufactured robot's components using CNC Machine:** Produced CAM models from SolidWorks, generated toolpaths, and post-processed; and manufactured robot parts in the HAAS CNC machines.

Calgen Solutions LLC

Mechanical Design Engineer

Houston, Texas

Jan 2019-Dec 2021

- **ASME Code Knowledge:** Successfully led the design process of multiple precision-engineered pressure vessels according to the codes ASME Section VIII Division 1 and ASME Section VIII Division 2.
- **Calculation/ Analysis:** Orchestrated calculation/ analysis using industry-leading software such as PV Elite and COMPRESS. Performed significant analyses like seismic, wind, lifting lug, and anchoring.
- **3D CAD modeling:** Developed 3D CAD models of the pressure vessels along with their internal and external attachments using Autodesk Inventor.
- **2D Drafting/ Drawing:** Drafted 2D manufacturing drawings applying the principles of GD&T using Autodesk AutoCAD and Autodesk Inventor as per the client's requirement. Reviewed fabrication drawings, assembly drawings, and P&IDs.
- **Bill of Materials:** Created detailed Bills of Materials (BOM) and sent to the clients for precise cost evaluation.
- **Aboveground Storage Tanks Analysis:** Pioneered the application of specialized AMEtank software for API Tank analyses covering roof design, bottom plate design, and shell thickness calculations, and produced accurate calculation reports.
- **Shell and Tube Heat Exchangers:** Executed design, rating, and analysis of Shell and Tube Heat Exchangers utilizing HTRI Xchanger Suite software and PV Elite.
- **FEA Analysis:** Performed static structural FEA analysis of complicated parts of pressure vessels utilizing ANSYS Workbench.

IME Motors Pvt. Ltd. (Ashok Leyland)

Service Engineer

Kathmandu, Nepal

Oct 2017-Jan 2019

- **Technical Expertise:** Provided first-level support, diagnosed issues, and implemented prompt solutions for vehicle repairs.
- **Team Leads:** Supervised technicians, fostering teamwork and enthusiasm, resulting in increased work efficiency.
- **Managerial aspect:** Managed billing processes, and updated customers on repair status, enhancing overall customer satisfaction.

Technical Skills

• Computer-Aided Design (CAD):	Autodesk Inventor, SolidWorks, CATIA V5, Autodesk AutoCAD
• Computer-Aided Manufacturing (CAM):	SolidWorks, Autodesk HSMWorks
• Finite Element Analysis (FEA):	ANSYS Workbench
• Boiler, Pressure Vessel, and Heat Exchanger:	PV Elite, COMPRESS, HTRI Xchanger Suite
• Tank Analysis:	AMEtank
• Programming and Simulation:	MATLAB, Simulink, LabView, Python, PyTorch
• Prototyping, Machining, and Fabrication:	Vertical Milling machine, CNC Milling machine, CNC Lathe Machine, Lathe, Abrasive Waterjet Machine, Welding, 3D printer
• Other:	Robot Operating System (ROS), Linux, MS Excel, MS Word

Honors and Awards

- Full tuition waiver for MS in Mechanical Engineering from Miami University.
- International Grant-in-Aid from Miami University.
- Summer Research Fellowship from Miami University Graduate School.
- MetLife Foundation Pathways Scholarship Program (during my Undergraduate studies).
- Full Tuition Waiver in High School for achieving the top score in the School Leaving Certificate (SLC) exam.

Aug 2022- Present

Jan 2022-May 2022

July 2023

2015-2018

2012-2013

Certification

- Certificate for Registered Engineers-Nepal Engineering Council

2019