Muhammad Java

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Summary: Mechanical Engineer with an interest in mechanical design and product development, with a passion for creating innovative solutions to challenging problems. A quick learner, always on the lookout for new ways to improve and expand his skills, and is ready to hit the ground running on new challenges.

SKILLS

Technical: Project Management, Surface Treatment, CNC Machining, Deburring, Milling, Sustainable Engineering.
Software: SOLIDWORKS, MATLAB, ANSYS Workbench & FEA, AutoCad, MS Office, Programming with Java.
Personal: Communication Skills, Ethical, Team Player, Independant, Innovative, Detail Oriented, Financial Awareness.

ENGINEERING EXPERIENCE

CAD Technician: Pike Engineering **June 2022 - July 2022**

- Creating CAD Drawings and bill of materials using AutoCad and MS Office including all necessary infrastructure from notes and constraints provided from field engineers.
- Responsible for managing teams and each project assigned and delivering by deadline.
- Reported directly to the project manager.

Academic Project: Senior Capstone Course **September 2020 - May 2021**

- Team based project designing (SOLIDWORKS), simulating, and fabricating an adjustable stiffness treadmill frame based on parameters and limitations provided by our sponsor (Kinesiology Department at UMass Amherst).
- Project Leader responsible for research, product prototyping, design, and simulation stages using SOLIDWORKS, Ansys, and MATLAB, as well as creating, and keeping the team on schedule to meet deadlines.
- Presented results at senior design project and wrote a detailed report documenting details and conclusions of the project.
- Used water jet cutting and welding methods for fabrication and assembly of working prototype

PROJECTS & ACTIVITIES

RC Car Modification Modeling and Design:

- Developed and designed a smart car with complex obstacle avoidance subsystems.
- Integrated subsystems with various components such as power source, drive train, direction control electronics, obstacle & motion sensors, and servo steering.

Hermetic Motor Protector:

- Team-based project which involved designing, optimizing, manufacturing, and testing a custom load carrying mechanical components for a specific application (application provided by Sensata).
- Led design efforts using SOLIDWORKS and conducted design evaluations using ANSYS.

Campus Hotel Integration Design:

- Led a team of two in a project proposing a design for a new campus hotel.
- Project constraints based on 4 key subdisciplines of civil engineering; structural, transportation, water and geotechnical.
- Solely responsible for structural design and soil engineering aspects of the project (AutoCad).

EDUCATION/CERTIFICATIONS

University of Massachusetts Amherst
B.S. in Mechanical Engineering **September 2017 - May 2021**
LinkedIn Learning SOLIDWORKS 2021 Essential Training **August 2021**
Relevant Coursework: Design of Mechanical Components, Thermodynamics, Design of Assemblies and Systems, Production Planning and Control, Manufacturing Processes, Materials Science.