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OBJECTIVE

Design focused mechanical engineering student with a successful history in leadership, interpersonal communication, and management. A detail-oriented and dynamic team player with over five years of team-oriented work experiences as well as over two years of engineering focused projects. Applicable experiences in the research environment at the [University] where I am a graduate as of May 2020.

SUMMARY OF QUALIFICATIONS

- Former [University] assistant researcher on supercritical carbon dioxide power generation
- Experience and knowledge in operation and maintenance of machining operations (Lathe and Milling)
- Showcased understanding of Rankine cycle to design framework of most optimal vapor power plant
- Selected as group lead in numerous projects to ensure task completion of group members
- Utilized knowledge in geometric constructions, Multiview drawing, and dimensioning to design a vehicle
- Proficient understanding of SolidWorks and Microsoft Office programs
- Conferred with fellow students to resolve system malfunctions, measurements, calculations, and data collection
- Excels in multitasking, critical thinking, decision-making and problem-solving, demonstrated as a student and member of staff
- Advocate for bilingual conversations in current leadership role
- Exemplifies a record of integrity, time management, punctuality, and dependability as a leader of a team

EDUCATION

[University]

Graduated: May 2020

Bachelor of Science in Mechanical Engineering

GPA:3.41

Presidential Scholar 2016-2020

Honors College 2016-2020

RELEVANT EXPERIENCE

[Job] – [City]

November 2014 - Present

Store Associate; Shift Leader, Pre-management

- Utilize interpersonal communication and small group communication
- Responsible for the operation and management of up to 15 store associates as well as the required equipment
- Ensure guest satisfaction to secure consumer loyalty
- Monitor environment to maintain safety and cleanliness
- Efficient in overseeing and executing protocol as an individual and over supervised team
- Mentor associates to advance to their next level of position
- Awarded the highest standard of quality at current store location

[Job] – [City]

August 2019 - Present

Contract Designer; SolidWorks and Robotics

- Using Solidworks, a design for two different robots were created for Reckon Point alongside another UTSA Alumni and fellow senior design partner
- Knowledge on robotic components, entry electrical engineering, and controls were acquired working with Reckon Point on these two robots
- The two robots that were designed for Reckon Point included a stair climbing chassis that 3D maps the environment (Senior Design) and a robot that goes up and down isles of grocery stores and disinfects the shelving without human intervention (Post Senior Design)

APPLICABLE ENGINEERING ACADEMIC PROJECTS

- **Design of a stair climbing chassis:** Design of a rocker bogie suspension with the ability to traverse stairs as well as outdoor usage. Design specifications such as wheel assemblies allow for zero degree turn radius and a differential system increases over all balance of the chassis. MATLAB and SolidWorks as well as hand calculations were used to verify specifications.
- **Visual and Aural Alarm:** Using the Arduino microcontroller and related components, created an alarm system that notifies a user in two different ways of an approaching object, like that of modern vehicles.
- **Design of a Vapor Power Plant:** Using thermodynamic principles, a design of a vapor power plant was done. Certain limitations were established and based on the criteria a maximum efficiency vapor power plant was created and analyzed using interactive thermodynamics program.
- **Design of a Disk Rotor Brake for Bikes:** Using mechanics of solids principles, a disk brake that would be subject to forces such as friction was designed. Finite element analysis were the principles applied and ANSYS Workbench was used to perform the analysis on the disk brake undergoing a variety of stresses. The disk brake that was designed successfully passed all engineering requirements.