

Mechanical Engineer interested in exploring all aspects of Finite Element Analysis, Computational Fluid Dynamics, and Computer Aided Design.

EDUCATION

Alabama A&M University

B.S., Mechanical Engineering/ Concentration: Nuclear Systems

Graduated: December 2020

Jefferson Davis Community College

A.S., General Science

Graduated: May 2015

EXPERIENCE

Diageo / Bourbon Production Expert, Louisville KY

March 2021 - Present

This role involves analyzing food-grade mechanical processes to eliminate safety hazards and respond quickly to any safety issues while assisting site leadership in meeting site objectives. My task is to control, monitor, and optimize all distillery processes to include Dried Distilled Grains via dry house, and warehousing processes. Within each process, I maintained automated production recording, management reporting systems through SAP ⁽¹⁾, as well as identified and corrected deviations from standard process parameters.

Daily tasks consist of supporting consistent approaches for Key Performance Indicators of the following: safety; quality; product cost management; and ensuring accuracy and completeness of all production processes and inventory paperwork. Additional duties include troubleshooting, inspecting, diagnosing, adjusting, testing, maintaining, and cleaning all facility equipment (i.e., mechanical, electrical, digital, and pneumatic equipment), as well as analyzing and repair PLC programming ⁽²⁾ logic as required.

United States Army Reserve / Combat Medic, Mobile, AL

March 2016 - Present

- Maintain and update medical records of soldiers; submit medical information in medical software, Med Pro ⁽³⁾
- Attend monthly battle assemblies for soldier training and field preparation activities to ensure that the soldiers were well prepared for life threatening situations

Auburn Research Center / Design Engineer, Huntsville, AL - (Internship)

August 2019 – December 2019

- Designed parts circuits under my security clearance using Creo ⁽⁴⁾
- Submitted weekly reports using Microsoft PowerPoint to team lead for production meetings
- Cross-trained with electrical engineers to learn and research fundamental principles needed to complete projects

SPECIAL PROJECTS

Novel Shell-and-Tube Thermosyphon Heat Exchanger

Fall 2019 – Spring 2020

- Technical lead on a team of three that created a 3D CAD drawing of an actual DEWCOOL unit with 5 baffle configurations. In addition, tasked to be a lead designer to produce statistical analysis of a CAD drawing via SolidWorks ⁽⁵⁾ and ANSYS ⁽⁶⁾.
- Evaluated the details of the velocity and temperature distribution throughout Novel Shell-and-Tube Thermosyphon Heat Exchanger to determine pressure drop, air velocity, efficiency, and stress on the system.
- Used simulation to compute overall heat transfer rate and pressure drop through the system.
- Prepared status reports for weekly meetings and conduct data analysis to determine the best course of action.

CERTIFICATIONS & TECHNICAL APPLICATIONS

Software Design Applications: Creo ⁽⁴⁾ ; SolidWorks ⁽⁵⁾ ; ANSYS ⁽⁶⁾ ; OpenFOAM; Siemensnx; bentleysystems

Computer Programming: MatLab; PLC Programming Logic ⁽²⁾ ; Linux

Medical software: Med Pro ⁽³⁾ ; E Pro

Work Process Software: System Application and Products in Data Processing (SAP) ⁽¹⁾; Microsoft Applications (Outlook; Word; Excel; PowerPoint; Visio; Adobe Acrobat)

