

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 by controlling, monitoring, and optimizing all distillery processes to include Dried Distilled Grains via dry house operation, and warehousing processes.
- Maintained automated production recording, management reporting systems through SAP ⁽¹⁾
- Daily tasks consist of supporting consistent approaches for Key Performance Indicators of the following: safety; quality; product cost management; and ensuring safety accuracy standards 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 using Creo ⁽⁴⁾ that were used to improve circuits; work was done under my security clearance.
- Submitted weekly reports using Microsoft Applications ⁽⁵⁾
- 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 model of a heat exchanger with 5 baffle configurations for a DEWCOOL system.
- Compared simulation results against the two previous designs and determine efficiencies via SolidWorks ⁽⁶⁾ and ANSYS ⁽⁷⁾
- Evaluated the velocity and temperature distribution throughout Novel Shell-and-Tube Thermosyphon Heat Exchanger to determine pressure drop, air velocity, design efficiency, and stress on the system
- Used computational simulation determine 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 ⁽⁶⁾ ; ANSYS ⁽⁷⁾ (WorkBench and Fluent) ; OpenFOAM; Siemensnx; Aveva

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

Work Process Software: System Application and Products in Data Processing (SAP) ⁽¹⁾; Microsoft Applications ⁽⁵⁾ (Outlook; Word; Excel; PowerPoint; Visio; Adobe Acrobat)

