

Imani A. Caldwell

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Objective

I am a mechanical engineering student pursuing a full-time opportunity in the design and development of safe, efficient, and innovative medical devices, and products.

Education

North Carolina A&T State University
Bachelor of Science in Mechanical Engineering
NCAT Honor's College

Greensboro, NC
Expected Graduation Date: May 2022
GPA: 3.64

Certification:

Lean Six Sigma Green Belt

November 2020

Skills:

Solidworks | MATLAB | Creo 5.0 | Spotfire | ARAS | Glovia | Risk assessment | Qualification processes | Data architecture | Customer relationships

Work Experience

AMETEK Engineered Medical Components **Applications Engineer** **Eden Prairie, MN** **Summer 2021**

- Developed operational protocols, control plans, engineering inspections, inspection procedures, and assembly build instructions.

M6 Empower

- Orchestrated collaborative design amongst engineers and utilized Creo 5.0 to develop the most effective potting fixture used during injection molding.
- Pulled component information from ARAS and Glovia to create a quote spreadsheet of the lowest cost, highest quality, assembly build.

Zoll Packaging

- Led the customized delivery packaging project by vetting out suppliers, conducting opportunity analysis and quoting, establishing project timelines, producing designs, leading design reviews, and serving as a bridge between multiple parties to facilitate effective communication for project success.

Axonics

- Interacted with project manufacturers and customers weekly to track performance and observed the comprehensive breakdown of product lifecycle management.
- Modeled a potting fixture used for pad printing in a manufacturing facility, then later redesigned and remodeled this fixture to improve the manufacturing process and in turn better meet customer needs.

Medtronic **Manufacturing Engineer- Operations (Feedthroughs)** **Virtual** **Summer 2020**

- Completed engineering disposition through Product Review Board (PRB/MRB)s to ensure product and product shipment met quality standards, and Medtronic was properly abiding by documentation and auditing regulations. Reported on scrap percentage and quality holds.

Pulse Scrap A3

- Supported the value stream's goal of scrap reduction by 1% in the pulse step of production lines L11 and Polaris. By following the DMAIC methodology to mine and analyze data, I was able to pinpoint high scrap producing inputs and implement techniques, saving Medtronic approx. \$60K annually.

High-Rate Header to Sandvik Oven

- Ensured operational ovens operated at the required standard during the glassing strategy and produced the project feasibility report, by supporting feasibility builds, testing, and data analysis using Spotfire and Excel.
- Gained experience in process failure mode effects analysis (pFMEA), characterization, process equivalency, operational and performance qualification.

Marathon Petroleum Corporation **Transportation and Logistics Engineer** **Findlay, OH** **Spring 2020**

- Expedited the pipeline installation and integration process and decreased downtime for pipelines by ensuring necessary pipe specifications and welding procedures were up to date, organized, and assigned to one central database.
- Collaborated with SMEs to collate Marathon Petroleum and Andeavor Legacy data to produce visually appealing, concise, and uniform documentation.
- Used Excel to document storage space, materials to purchase, and their estimated cost to calculate the 2021-22 Emergency Material and Warehouse Budget.
- Became familiarized with pipe, fitting, and flange grades, and pulling information from pipe data tables to calculate internal design pressure (IDP), Maximum operating pressure (MOP), and Limiting component of pipe to ensure pipe durability and review Hydrotect packets.

Projects

Mechanical Engineering Graphic Design

- Leveraged Solidworks to design all components necessary to complete a steamboat, consisting of subassemblies and exhibiting kinetic and rotational motion.

Mechanical Engineering Sophomore Laboratory

- Exercised innovative thinking and project management skills to produce a rotating shoe rack prototype using 3D printing to fabricate a mechanical subsystem. Developed Arduino skills to program a microcontroller.

Leadership Experience

Mechanical Engineering Student Council

August 2019 - Present

- One of eight students elected to voice student concerns, mitigate departmental problems, and discuss solutions for success with mechanical engineering faculty.

The American Society of Mechanical Engineers – President, Miss ASME, Treasurer

April 2021 - Present

- Assisted in the organization's growth, and member's continued success through career, academic, and financial development programming.

The National Society of Black Engineers – Academic Excellence Chair

April 2020 - April 2021

- Established the first tutoring lab specific to engineering courses to serve as a catalyst for 47 member's academic improvement.

Thrive Women's Empowerment

March 2020 - April 2021

- Exposed non-STEM related students to the relevance and benefits of engineering training and skills across all industries.

Organizational Involvement

Biomedical Engineering Society | Aggies for Engineering and Community Enrichment | Society of Women Engineers | NSBE HISIG | First Lego League

Honors and Accolades

- Honeywell Women in Engineering Scholar
- ELC Raytheon Technologies Scholar
- NSBE/ Honeywell IPP Scholar
- NACME Scholar