

Zackery J. Arsement
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Education

The University of Texas at Austin

B.S. in Mechanical Engineering, GPA: 3.426/4.000

September 2017 – December 2020

Lamar University

M.E. in Mechanical Engineering, GPA: 4.000/4.000

Specializing in “Energy Conversion and Conservation”

June 2021 – Expected to Graduate December 2022

Skills

JQuery, Javascript, HTML, CSS, Bootstrap, NodeJS, SolidWorks, OpenFOAM, C#, MATLAB, Robot-C, Arduino, Python

Experience

Wrench Time Analyst for Kelly Services at DOW Chemical (Orange, TX)

June 2021 – November 2021

- Shadowed crews such as E&I, mechanic, and pipefitters during daily and turnaround schedules for all DOW Units
- Planned process optimizations with engineering leadership such as scheduling, job set ups, and permitting
- Extracted thousands of data entries to provide management with clear E&I, mechanical, and pipefitting insight

NASA Mechanical Engineer – Senior Design Project

Fall 2020

- Developed an exercise device in a zero-g environment for NASA, alongside 3 team members
- Utilized SolidWorks to design, model and perform fatigue/stress analysis on device
- Ensured ergonomic features and prioritized safety for human use

UV-C COVID Sterilization Cart Cleaner, Mech. Engr. Design Methodology

Summer 2020

- Utilized SolidWorks to design a sterilization tunnel for shopping carts
- Implemented fatigue analysis and radiation calculations to ensure effective design

VEX Robotics (Collegiate World Participant)

August 2013 - April 2018

- Collaborated in design and building of team robot
- Captain of Kountze High School Dapper Dan Robotics team for 3 years
- Placed 4th in the world for 2018 Collegiate VEX Robotics SKILLS challenge

Catering Manager, Rockin’ A Café (Beaumont, TX)

June 2017 – June 2021

- Led catering events for small and large scale events (15-1500 meals)
- Participated in benefits for local families during natural disasters and medical fundraisers
- Performed midnight deliveries to assist local refineries during turnaround events

Accomplishments

Research Paper, “Switching UT Austin to Renewable Energy Sources”

Summer 2020

Valedictorian, Kountze High School

May 2017

Captain & Participant, UT Intramural Sports (Basketball/Ultimate Frisbee)

Jan 2019 – May 2020

Volunteer Work

Christian Mission Trip to “The First Nations” Reservation, *Saskatchewan, Canada*

July 2018

Leader for Vacation Bible Schools at Local Churches, *Kountze, TX*

Summer 2015, 2017, 2019