Jackson Bitterolf

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Education

Purdue University West Lafayette, IN
Bachelor of Science in Mechanical Engineering *Aug. 2020 – May 2024*
GPA: 3.60

Skills and Relevant Coursework

Software: PLS CADD, PLS Pole, Solidworks, Onshape, Fusion 360, Siemens NX, Creo, Python, MATLAB, NI Labview, Microsoft VBA, Microsoft and Google Suite
Hands On: 3D Printing, Laser Cutting, Manual Lathe, Manual Mill, and Hand Held Power Tools
Relevant Coursework:Electrical Engineering Fundamentals, Thermodynamics I & II, Statics, Dynamics, Fluid Mechanics, Mechanics of Materials, Measurement and Control Systems, Machine Design, Heat and Mass Transfer

Work Experience

Assistant Transmission Engineer Sept. 2024 – Present
Burns & McDonnell *Denver, CO*

- Design a variety of different transmission line projects using industry standard tools to deliver safe and compliant outcomes that exceed client expectations.
- Collaborate with teams of internal and client employed engineers to support multiple client programs and deliver high quality solutions.

Technical Sales Intern Jun. 2023 – Aug. 2023
Emcor Services Mesa Energy *Thousand Oaks, CA*

- Worked with vendors and account managers to generate pricing and proposals for over six hundred thousand dollars of HVAC service work
- Learned about the HVAC industry through hands on experiences like job walks, technical classes, seminars, and work experience
- Developed an excel macro using Visual Basic for Applications to auto-populate customer proposals from an internal document

Research Assistant Jan. 2023 – May 2023
Zucrow Labs, Purdue University *West Lafayette, IN*

- Performed cogasification experiments to produce raw data on the byproducts of petroleum coke and biomass cogasification.
- Used MATLAB, python, and excel to process raw data into useful metrics used to draw conclusions on the most efficient blend of biomass and petroleum coke

Mechanical Engineering Intern May 2022 – Aug. 2022
Miso Robotics *Pasadena, CA*

- Created proof of concept prototypes to explore electromagnetic technology for a robotic gripper
- Designed, manufactured, and tested many iterations of prototypes using CAD, 3D printing, arduino, and python
- Communicated to company leadership the advantages and challenges of implementing electromagnetic technology into the gripper

Engineering Projects

Horse Race Toy Oct. 2023 – Dec. 2023
Computer Aided Design and Prototyping

- Worked closely with peers to design and prototype a desktop toy that simulated a three horse race
- Designed and coded the electronic sub system responsible for controlling the race

AR Sandbox Aug. 2020 – May 2021
EPICS Project Lead

- Collaborated with a team of diverse engineering students in the construction and design of an AR sandbox table
- Communicated progress and technical plans for an AR sandbox to EPICS team in a weekly technical presentation

Extracurricular

Community Service Chair Jan. 2022 – May 2022
Alpha Tau Omega Fraternity *West Lafayette, IN*

- Established new relationships between the community and fraternity to organize community service events within the Lafayette community