

# MALLORY BARTOW

## MECHANICAL ENGINEER

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### EXPERIENCE

**QUALITY ASSURANCE ASSISTANT MANAGER, AM Technical Solutions, Inc., Semiconductor Industry** June 2021 - Present

- Assist in managing architectural, mechanical and process piping 3rd party inspection firms to ensure adherence to the contracted scope of work, proper documentation of NCRs and FIFs, and specification/code compliance
- Support the Intel QA Managers in specification updates, code research, metric tracking, and investigation for QIAs
- Operate as the AHJ Coordinator for AMTS to ensure all 350 tools installed since June 2021 are receiving proper permitting
- Supported the introduction of a robust tracker, flowchart, and checklist for the AMTS AHJ program
- Perform onsite leading indicator field walks for basebuild and tool install construction observing and tracking work practices

**QUALITY ASSURANCE REPRESENTATIVE, AM Technical Solutions, Inc., Semiconductor Industry** Feb 2021 - June 2021

- Provided quality assurance for pressure tests, weld inspections, Virtual Factory Checklists, and LSS inspections to confirm the process and mechanical piping meets ASME B31.3 code and Intel Specifications
- ASNT SNT-TC-1A VT Level II certified with knowledge of Intel Specs, ASME B31.3, ASME BPVC Section IX, and ASME BPE
- Validated Bill of Quantities (BOQs) to verify the correct length and size piping and electrical wiring were being billed to Intel

**PART-TIME RELIABILITY ENGINEER, Renewable Energy Group, Oil & Gas Industry** Aug 2019 - May 2020

- Developed recommendations for replacing corroded piping by analyzing ultrasonic thickness data and wrote "request for quotes" (RFQ) for up to \$250,000 projects
- Eliminated overdue non-destructive examinations by leading weekly meetings and creating a daily inspection schedule for the mechanical integrity & quality team to establish compliance with ASME Code
- Audited the J.D. Edwards database for inconsistent nomenclature, out-of-service systems, and assets missing from the P&IDs and facilitated a meeting with improvements and recommendations for over 350 assets

**MECHANICAL ENGINEERING INTERN, Renewable Energy Group, Oil & Gas Industry** May 2019 - Aug 2019

- Authored a training module covering ASME Section VIII, Div. 1 Pressure Vessel Design & Fabrication, Section V NDE, and Section IX Welding focusing on critical features and pitfalls Project Managers may experience
- Standardized the Painting & Coating Specification to prevent corrosion under insulation (CUI) and stress corrosion cracking in compliance with API 571 and presented the recommendations to the Senior Leadership Team

**STRUCTURAL ENGINEERING CO-OP, L3 Technologies, Aerospace Industry** Jan 2018 - July 2018

- Substantiated models using stress analysis checking for initial buckling, deep beam bending, and additional means of failure in a 16G frontal crash scenario and collaborated with the Design Engineer to resolve issues when drawings failed
- Authored Stress Reports and Stress Notes to convey the methodology used to substantiate critical stresses to the client

### ACADEMIC PROJECTS

**SHELL ECO-MARATHON, Capstone Senior Design Team** Aug 2019 - May 2020

- Recognized as a Ben Burns Jr. Memorial Best Project Contender and Best Capstone Report Award for engineering a safe, lightweight, and highly fuel-efficient vehicle achieving 217 mpg
- Designed the chassis, drafted construction drawings, performed finite element analysis to achieve a 29% weight reduction
- Managed the chassis subteam throughout the engineering design process and finalized the part 7 weeks prior to competition
- Facilitated communication, procurement of materials, and project finances as the elected person of contact allowing the vehicle to be completed within the \$10,000 budget and operating 2 weeks prior to the anticipated competition date

### SKILLS

- Experience in Power BI, BIM360, SolidWorks, SolidWorks Simulation, MATLAB, Ansys Workbench, MSC Nastran, and Patran.
- Proficient in Microsoft Office, Word, Excel, PowerPoint, Outlook, Teams, BlueBeam, and Adobe Acrobat Reader
- Recognized as a Distinguished Communicator upon graduation for my expertise in technical communication.

EDUCATION

**BACHELOR OF SCIENCE IN MECHANICAL ENGINEERING**

*Louisiana State University*

Graduated May 2020

3.43 GPA