

Joshua S. Beverly

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OBJECTIVE:

To further my career in mechanical engineering by obtaining a position that utilizes my knowledge of engineering practices and past work experience.

EDUCATION:

- | | |
|--|----------------------|
| Master of Science in Mechanical Engineering | December 2014 |
| Bachelor of Science in Mechanical Engineering | December 2012 |
| Bachelor of Science in Engineering Technology | May 2007 |
| <i>Old Dominion University</i> | <i>Norfolk, VA</i> |
- Engineer in Training (EIT) - Passed Fundamentals of Engineering exam April 2007
 - Member of Tau Beta Pi engineering academic honor society
 - Two-time Langley Aerospace Research Student Scholars (LARSS) scholarship recipient
 - Dean's List: Spring 2011, Fall 2011, Spring 2012, and Fall 2012
 - Graduate GPA: 3.95/4.00, Undergraduate GPA: 3.34/4.00

WORK EXPERIENCE:

- | | |
|---|---------------------------------|
| Mechanical Engineer (Aerospace Technologist) | January 2013 – Current |
| LARSS Intern | May 2012 – December 2012 |
| <i>NASA Langley Research Center</i> | <i>Hampton, VA</i> |
- Developed plans, procedures, schedules, and various reports for mass property, vibration, and thermal/vacuum testing
 - Served as a test engineer for thermal/vacuum testing of space flight hardware
 - Conducted mass property testing for various flight components, International Space Station payloads, flight components, mass models, and small proof of concept models
 - Regularly interfaced with project representatives, management, thermal analysts, designers, and scheduling personnel to plan and execute required testing
 - Determined chamber configurations for placement of test articles, thermocouples, cryogenics, and contamination control equipment
 - Analyzed cleanliness and out-gassing characteristics using quartz crystal microbalances (QCMs), residual gas analyzers (RGA), scavenger plates, cold fingers, and other contamination control equipment
 - Designed fixtures for mass property, vibration, and thermal/vacuum testing
 - Planned and oversaw implementation of facility upgrades including cooling water, high pressure air, gaseous nitrogen, compressed air, and cryogenic fluids
 - Developed LabVIEW software for thermal/vacuum chamber controls and data acquisition
 - Sized and selected helium compressors and cryogenic pumps for vacuum chambers
 - Conducted and oversaw vibration and modal testing
 - Developed solid models and engineering drawings for test articles and facility equipment

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Mechanical Engineer (Contractor)

May 2011 – January 2012

Power Mechanical Inc.

Newport News, VA

- Provided technical guidance for boiler refurbishment and modifications
- Sized boilers, heat exchangers, chillers, and domestic hot water systems
- Maintained equipment CAD drawings, technical specifications, and certifications

Mechanical Engineer I

September 2007 – April 2011

Newport News Shipbuilding (Northrop Grumman / HII)

Newport News, VA

- Served as the cognizant engineer for the weapons shipping and handling system for Virginia, Los Angeles, and Seawolf class fast attack submarines
- Supported nuclear submarine construction by designing new components and resolving non-conformances encountered during the construction process
- Developed, and implemented, process improvements to reduce weld distortion and machine time required for large welded assemblies
- Designed fixtures and jigs to reduce time and simplify weldment inspection
- Coordinated mechanical property testing for composite bus bar insulator assemblies
- Performed calculations for stress analyses for newly designed components as well as non-conforming components in their as-built condition
- Developed plans, procedures, and supervised shock/vibration testing for multiple shipboard components
- Generated detailed reports for shock, vibration, and mechanical property tests
- Reviewed complex machinery designs and provided improvements for manufacturability
- Researched/evaluated alternate weld joint designs for producibility and reduced distortion
- Interpreted build specifications, specification applicability, and contract requirements
- Communicated daily with vendors and customers (internal and external)

ADDITIONAL INFORMATION:

- Well-versed with Microsoft Office suite
- Familiar with MATLAB and basic C++ programming
- Proficient with computer-aided drafting software (2D and 3D) including AutoCAD, QCAD, Autodesk Inventor, SolidWorks, and Pro/ENGINEER (Wildfire 5.0)
- Experienced SMAW (stick), GMAW (MIG), and GTAW (TIG) welder
- Familiar with electrostatic discharge sensitive equipment, clean rooms, and cryogenics

ADDITIONAL EXPERIENCE:

Additional internships with Howmet Hampton Castings (Alcoa Inc.) and Langley Full Scale Wind Tunnel (ODU Research Foundation) are not listed. Additional information including experience, responsibilities, and references will be provided upon request.