

**JEFFREY WARREN ROBERTSON, PE**  
**jeffreywrobertson@gmail.com**  
**117 Tamara Lane**  
**Oak Ridge, TN 37830**  
**(256) 714-5458**

**Education:**

- BSE, Mechanical Engineering, University of Alabama, Huntsville. 12/1990, 3.4 GPA
- Attended Auburn University from 9/1984 - 3/1987, Major: Mechanical Engineering

**General Qualifications:**

- Licensed Professional Engineer (PE), States of Alabama (inactive) and Tennessee (inactive) with a specialization in machine design.
- Project Management Professional (PMP) certified (expired 12/18).
- Six years of project management experience.
- Active TS level DoD clearance (formerly a DOE Q; converted in Sept 2017).
- Rad Worker II qualified through Y12 National Security Complex
- Skilled at PTC CREO 2.0. Nearly 10 years cumulative modeling and drafting experience.
- Skilled in Geometric Dimensioning and Tolerancing (GD&T) per ASME Y14.5M.
- Skilled at Microsoft Office applications, specifically: Word, Powerpoint, Outlook and Excel.
- Skilled at creating and managing schedules using Microsoft Project.
- Stress analysis using ProE Mechanica.
- Skilled in using Windchill database.
- Quote from a project performance review written by direct supervisor: "Unusually strong ability to plan and lead a complex long-term activity."

**Employment History:**

Parsons Corporation, (Huntsville, AL) (8/2017-present) Lead Systems Engineer

- Lead Systems Engineer in the Advanced Research Directorate of the Missile Defense Agency.
- Performed project management duties for a portfolio of advanced technology research projects.
- Served as subject matter expert (SME) in aerospace structures and mechanisms for the Small Business Innovative Research (SBIR) / Small Business Innovative Research Technical Transfer (STTR) group in the Advanced Research Directorate.
- Reviewed proposals and deliverables for small business research projects to assess technical and programmatic viability.
- Advised small business contract technical monitors in matters of aerospace design and project management practices.
- Developed, implemented, and maintained project controls procedures including an integrated master schedule (IMS) for a CubeSat experiment.
- Traveled to SBIR/STTR outreach events to scout emerging technologies for the MDA mission.

Merrick and Company, (Oak Ridge, TN) (1/2011-7/2017) Task Manager/Senior Engineer

- Served as Senior Engineer and Task Manager for the Casting process area on the Uranium Processing Facility project. Coordinated and supervised a team of 12 engineers and designer/drafters to design 34 gloveboxes and material handling systems for hazardous material containment and processing.
- Managed scope, budget, and schedule for multiple simultaneous projects. Established priorities. Assigned design and analysis tasks. Developed requirements. Developed schedules and cost estimates. Tracked technical progress. Provided inputs to Earned Value Management (EVM) reports. Coordinated technical meetings and design reviews. Estimated change requests for impacts to scope, cost, and schedule. Performed engineering checks of drawings and models and design reports. Mentored junior engineers and designers. Interfaced with client Task Order Representative (TOR). Collected and submitted group activity reports. Client commented that during my tenure my team went from being the worst performer to "miles ahead of the rest."
- Served as Discipline Representative for the mechanical design discipline. Supervised seven engineers, managed performance reviews, approved timesheets and meted out employee discipline and good performance awards.

- Served as Lead Engineer for the Batch Makeup Glovebox System. Led the design and develop of engineering documentation for a complex glovebox system. Reviewed and checked fabrication drawings. Developed Material Handling Diagrams (MHD). Led the design and construction of equipment mockups for ergonomic evaluations. Reviewed and corrected Piping and Instrumentation Diagrams (P&ID). Performed design and equipment sizing calculations. Developed equipment requirements documents and evaluated designs to confirm compliance with requirements and applicable codes. Reviewed and checked process piping drawings.

Jacobs Engineering, Inc. (Huntsville, AL), (7/1997-10/2010) Senior Engineer and Subtask Lead

- Senior Engineer and Technical Lead for the Ares I, Upper Stage, Core Stage and Interstage Design Support Subtask. Coordinated and supervised a team of 12 engineers and designer/drafters to provide design support for the LOX tank, LH2 tank, common bulkhead, systems tunnel, thrust structure, and interstage.
- Component Development Team Lead for the LOX tank. Directly supervised a team of four design engineers and coordinated and tracked the efforts of over forty engineers of various disciplines to design and qualify the LOX tank. Designed primary tank structure. Modeled components in CAD. Performed preliminary stress analysis. Supervised layout reviews. Coordinated and presented the critical milestone design reviews. Scheduled activities. Prepared and submitted regular activity reports. Coordinated and hosted biweekly project status meetings. Insisted that every meeting end with a decision and plan of action.
- Was delegated Structural Design Team Lead during supervisor's absence. Supervised over 60 personnel.
- Led a small team to design and build a robotic carpal wrist for a solar array power generation system. Object was to use the mechanism to track the sun. Exceeded customer expectations by meeting an aggressive hardware delivery schedule.
- Provided systems engineering support for the X37 experimental orbital vehicle. Duties included deriving design requirements, writing specifications, and evaluating mechanisms designs such as the vehicle control surfaces, payload bay door opening/closing mechanisms, and landing gear.
- Served as representative on a contract wide information system management team.
- Coordinated a popular and highly successful, contract-wide mentor-protégé program for cross training.
- Established and coordinated a group to study for and take the Professional Engineer's Exam. We all passed and were subsequently licensed.
- Served as Test Conductor for the ISS Common Berthing Mechanism Capture Latch mechanism acceptance tests. Operated functional tests, dynamic (vibration) tests, and thermal vacuum tests. Maintained test log and prepared test reports. Coordinated technicians to assemble and disassemble the test configurations.
- Provided on-console engineering support for the ISS on-orbit assembly operations in the Huntsville Operations Control Center in support of Mission Control. Specific area of responsibility: module berthing operations.
- Designed a rotator mechanism for the ISS water reclamation system distiller. Created 3D CAD models and developed production drawings using ProEngineer 2001. Selected vendor parts. Provided shop support. Resolved manufacturing issues.
- Designed a water reclamation system wastewater tank and pressure relief valve. Created 3D CAD models and developed production drawings using ProEngineer 2001. Selected vendor parts. Provided shop support. Resolved manufacturing issues.
- Designed mechanical components for a roots blower compressor for the ISS water reclamation system distiller.
- Designed the LOX/LH2 delivery system plumbing for an experimental liquid rocket engine.
- Designed the plumbing for a nitrogen gas distribution system for a solar thermal propulsion experiment.
- Designed numerous mechanical sealing systems using o-rings and pressure assisted seals.
- Coordinated computer hardware and software for the Propulsion Design group.

The Boeing Company, (Huntsville, AL) , (3/1992 – 6/1997) Design Engineer.

- Designed mechanisms, support equipment, test fixtures, and tooling for the International Space Station. Generated requirements, synthesized design solutions, evaluated design and made recommendations for improvement. Scheduled project tasks, coordinated with other sub-contractors and suppliers, prepared design specifications, and developed production drawings using Intergraph EMS CAD. Created 3D solid models of mechanisms, presented status and design reviews to management and customer.
- Designed the Common Berthing Mechanism (CBM) thermal transfer mechanism.
- Designed the CBM guide pins and primary seal.

- Designed the CBM Thermal Balance Test fixture. Created 3D CAD models and developed production drawings using Intergraph EMS. Selected vendor parts. Provided shop support. Resolved manufacturing issues. Supervised test facility installation. Observed test.
- Designed the ISS Hatch Qualification Test fixture. Created 3D CAD models and developed production drawings using Intergraph EMS. Selected vendor parts.
- Designed the ISS Hatch scissors jack hoist mechanism. Created 3D CAD models and developed production drawings using Intergraph EMS. Selected vendor parts.
- Designed slings and hoist devices for International Space Station (ISS) cryogenic fluid carriers. Created 3D CAD models and developed production drawings using Intergraph EMS. Selected vendor parts.

General Electric Company, (Decatur, AL) (1988 - 1990) Co-op.

- Assigned to the Quality Engineering department.
- Developed a program of Statistical Process Control techniques for sheet metal forming in a high volume manufacturing environment.
- Developed and wrote sampling procedures, forms and instructions for recording and reporting quality data.
- Purchased and evaluated programmable quality data collection equipment and trained employees in their use.
- Performed tests to evaluate precision and accuracy of measuring devices.
- Performed process capability studies to determine achievable manufacturing tolerances.
- Presented status reports on quality issues to management.
- Coordinated with inspectors, machine operators, and manufacturing engineers to resolve quality issues.

Athena Engineering Co. (Huntsville, AL) (2/1988 - 9/1988) Engineering Research Assistant.

- Assisted UAH research professor in the investigation of the mechanical properties of composite materials including graphite and fiberglass composites.
- Manufactured test specimens, operated test equipment, analyzed test performance data, and prepared test reports.

**Other Qualifications:**

- Facilities Manager, Theatre Huntsville (2003). Duties included managing facilities maintenance and improvement planning. (volunteer)
- Treasurer and Chief Financial Officer, Theatre Huntsville (2004-2006) Duties included purchasing, bookkeeping, reimbursements, cost analysis, preparing and presenting financial reports, and filing tax returns. (volunteer)