**Michael McDonald**

**755 Parmley Hollow Rd.**

**Tracy City, TN 37387**

**931-639-2074**

**Lehium.M.McDonald@gmail.com**

**Summary**

Skilled mechanical engineer. Exceptional organization, communication and analytical skills. Adapts well to dynamic and challenging test environments. Produces reliable, consistent results. Self-starter, works well independently or in team environment. Experience working in research, development and test programs at AEDC.

**Experience**

**Test Operations Engineer II July 2016-Current**

National Aerospace Solutions, Arnold AFB, Tn.

* Assists in planning, design, fabrication, installation and removal of equipment and test articles at hypersonic test facility APTU
* Provides technical direction for maintenance, facility asset coordination, configuration management, and systems engineering
* Develops conceptual designs for mechanical system upgrades, repairs, or new installations
* Insures adherence to applicable OSHA, ASME, environmental, and industry standards
* Responsible for updating system drawing and work instructions
* Coordinates work flow and issues work instructions to mixed craft test crew consisting of Electricians, Machinists, Pipefitters, Boilermakers and Instrument Technicians
* Researches and procures material for maintenance and test programs
* Directs craft operating test facility systems during test operations
* Responsible for creating work instruction packages to support test programs
* Experience with cryogenics, kerosene based fuel, high pressure air, and isobutane

**Test Operations Engineer I Jan 2016-July 2016**

Aerospace Testing Alliance, Arnold AFB, Tn.

* Assists in planning, design, fabrication, installation and removal of equipment and test articles at hypersonic test facility APTU
* Provides technical direction for maintenance, facility asset coordination, configuration management, and systems engineering
* Develops conceptual designs for mechanical system upgrades, repairs, or new installations
* Insures adherence to applicable OSHA, ASME, environmental, and industry standards
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* Coordinates work flow and issues work instructions to mixed craft test crew consisting of Electricians, Machinists, Pipefitters, Boilermakers and Instrument Technicians
* Researches and procures material for maintenance and test programs
* Directs craft operating test facility systems during test operations
* Responsible for creating work instruction packages to support test programs
* Experience with cryogenics, kerosene based fuel, high pressure air, and isobutane

**Manufacturing Engineering Intern Aug 2015-Dec 2015**

Tennessee Rand, Chattanooga, Tn.

* Developed training documents and presentations
* Developed robotic simulations using CimStation
* Created purchase and training request documents
* Created work procedures

**Plant Engineering Intern May 2015-Aug 2015**

Aerospace Testing Alliance, Tullahoma, Tn.

* Revised work instructions
* Revised system drawings
* Ordered materials for maintenance on high pressure air systems
* Assisted in trouble shooting system issues
* Assisted in ISI system walk downs
* Assisted in developing spreadsheet to evaluate life expectancy of system piping per ASME code B31.3

**Engineering Intern TVA June 2014- May 2015**

TVA, Chattanooga, Tn.

* Developed color-coded flow diagrams to highlight the ASME code class boundaries of safety systems at Watts Bar Nuclear Plant
* Reviewed flow diagrams and developed processes for identifying code class components for Sequoyah Nuclear Plant and Watts Bar Nuclear Plant.
* Developed Access databases to capture and store critical In-service Testing and Containment Leak Rate Program data

**Quality Technician June 2012-June 2014**

Tennessee Rand, Chattanooga, Tn.

* Inspected parts to ensure conformance
* Created technical drawings for inspection of datum for automated welding fixtures
* Monitored project workflow timelines ensuring projects are finished on time
* Utilized FARO arm to verify location of datum
* Adjust and trouble shoot any design deviations in automated welding fixture after utilizing FARO arm
* Use CMM to verify features of welded assemblies were within defined tolerances

**Education**

**University of Tennessee Chattanooga**

Bachelors of Science Mechanical Engineering

Graduation Date: Dec. 2015

**Chattanooga State Community College**

Associate of Science in Engineering

Concentration: Mechanical Engineering

Graduation Date: May 2013

**Additional Information**

Familiar with SolidWorks, AutoCAD, AutoCAD Inventor, Pro E, Microsoft Word, Access, PowerPoint, and Excel. Active security clearance