**Paul S Nogradi, Jr.**

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**EDUCATION**

**Master of Science in Industrial Engineering –** University of Tennessee 05/2020

         Concentration: Systems Engineering

**Bachelor of Science in Mechanical Engineering –** University of Tennessee 05/2014

Minor in Reliability and Maintainability Engineering

**PROFESSIONAL EXPERIENCE**

**Mechanical Engineer** – Oak Ridge National Laboratory – Oak Ridge, TN 08/2018 – Present

Oak Ridge National Laboratory – Oak Ridge, TN

* Act as Control Account manager for the Package Testing Program
  + Design and fabricate lifting fixtures to American Society of Mechanical Engineer specifications. Perform FEA (SolidWorks Simulation), create drawing packages, procure, load test, and implementation
  + Procure quality significant lab equipment, manage inventory of calibrated lab instruments, and submit necessary permits for laboratory testing
  + Carry out testing to DOE Code of Federal Regulation and American National Standards Institute requirements
  + Write Regulatory Compliance Testing report with assistance of other contributors
* Lead engineer on nuclear transportation security for Off-Site Source Recovery Program (OSRP) for National Nuclear Security Administration (NNSA)
  + Analyze current design and develop advanced methods for detection and delay for package protection from multiple adversarial methods
  + Increase package security through redundant systems and material upgrades
  + Lead fabrication, installation and verification of detection and delay through the creation of applicable testing methods
  + Include the ORNL developed Transportation-Security, Tracking, and Reporting (T-Star) unit for active transportation monitoring
* Lead engineer on multiple x-ray and neutron generator and detector imaging systems
  + Design and build rigid test stands with built in adjustments for proper alignment of generators and detectors to allow for accurate material identification
  + Repackage components from existing generators and detectors to meet developing requirements set forth by project sponsors

**Mechanical Engineering Technician** – Oak Ridge National Laboratory – Oak Ridge, TN 09/2015 – 08/2018

* Aided with developing CAD models and inclusion into larger assemblies
* Assisted with Type-B nuclear material transportation cask regulatory testing
* Operated Stratasys 3d printer
  + Maintained a schedule for printer for multiple users
  + Established and maintained inventory of printer materials and replacement components
* Performed multiple design analysis calculation documents for neutron detector and generator systems
* Operated overhead crane, manual lathe, mill, drill press, band saw and other shop equipment
* Routinely modified components during initial testing to ensure proper operation upon deployment

**Sourcing Engineer** – JTEKT Automotive – Vonore, TN 03/2015 – 09/2015

* Managed Metal Stampings Commodity that supplied components to 13 JTEKT facilities
* Created request for quotation packages that consisted of technical drawings, annual usages, lead time information and production milestones
* Formed quotation comparison charts to analyze data such as cost, timing, and delivery
* Drafted, negotiated, and implemented metal stamping supplier agreements

**Material Analysist**  – Oak Ridge National Laboratory (subcontractor) – Oak Ridge, TN 09/2013 – 03/2015

* Utilized Palantir Gotham to research, construct and analyze supply chains for materials demmed critical for national defense purposes
* Researched foreign and domestic mining, processing, and manufacturing companies
* Generated Material Summary Documents that were included in reports sent to Congress
* Co-developed program specific training documentation and standard operation procedures used in analyst training

**Process Engineer** – HP Pelzer Automotive Systems – Athens, TN 09/2014 – 12/2014

* Optimized sound dampening material production and flow into tooling dies
* Mechanical system (servo motors, pneumatic sensors, proximity sensors) troubleshooting
* Aided in negotiating infrastructure, assembly, and starting of new manufacturing lines

**SELECTED PUBLICATIONS**

* Test Report for DPP-1 Regulatory Compliance Testing
* Regulatory Testing and Posttest analysis of the DPP-3 Type B Shipping Container for NCT and HAC Tests
* Regulatory Testing of a Type B Shipping Container for NCT and HAC
* Conceptual Design of the Package Handling System for the Deep Borehole Engineering Demonstration

**TECHNOLOGY CREDENTIALS**

* SolidWorks
* ANSYS SpaceClaim
* Microsoft Office Suite

**AWARDS AND ACHIEVEMENTS**

Boy Scouts of America Eagle Scout 2009

Phi Eta Sigma Collegiate Honor Society 2010