

Zachary H. Duda

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Electrical Engineer with extensive experience in Hardware Integration and Test efforts. Seeking a position that utilizes my technical knowledge, analytical skills, and dedication to hard work to create a challenging environment that will promote personal growth and value for the company.

Professional Experience

Northrop Grumman Mission Systems

- Hardware Engineer – Hardware Subsystem Engineering, Antenna Integration & Test April 2018 – Present
- Assisted with integration and test efforts in a near field antenna range to verify design and performance requirements of an advanced electronic warfare (EW) system for the U.S. Navy
 - Performed MATLAB data analysis of RF cable return and insertion loss, power density, antenna gain, etc.
 - Presented data analysis to technical leads and program management
 - Executed procedural testing in near field range to successfully tune and validate operational parameters of antenna
 - Resolved anomalies and dilemmas during equipment integration with test facility
 - Characterized performance of near field range equipment to optimize test settings
 - Developed bench plans and component inventories for future system production test phases
 - Worked with Antenna Lead to process and package collected data for customer presentations
 - Mentored new employees on near field range processes and how to conduct all tests in the antenna ranges

- Systems Engineer – SEIT, System Integration and Test July 2017 – April 2018
- Constantly interacted with and provided answers to AWACS customers on daily basis through 40 hour tasks
 - Troubleshoot returned materials for repair (RMRs) on test tool and create reports to send to the rest of the team
 - Conducted several simulations and redesigns of parts and wires to replace DMS parts
 - Analyzed failures in T/R modules: determined reasons for high failure rates and means of mitigation
 - Conducted MESA 1 Lot Customer Cost Proposal

Technical Skills

- Knowledge of RADAR, RF/Hardware Troubleshooting, Signal Processing, Integration and Test Efforts, Data Analysis
- Software – MATLAB, Simulink, LINGO, Tableau, MathCAD
- Test equipment – oscilloscope, spectrum analyzer, function generator, PNA, power meter, milliohmeter

Education

James Madison University **Harrisonburg, Virginia**
 Bachelor of Science in Engineering, Minors in Business and Mathematics GPA: 3.33 (Cumulative), 3.49 (Major)

Work History

James Madison University – Fabrication Lab Student Assistant October 2016 – May 2017
Northrop Grumman Corporation – College Administrative Intern May 2016 – August 2016
Skanska USA Building/Nielsen Builders – Project Engineer October 2014 – August 2015
Wegmans Food Markets – Cashier October 2010 – June 2015

Academic Projects

Cold Plasma Medical Sterilization System for NASA 2015 – 2017
 Developed a cold plasma medical sterilization system to sterilize medical devices, surfaces, and skin

Custom Human Powered Vehicle for Child with Cerebral Palsy 2014 – 2015
 Designed and built a custom bicycle for an 8 year old boy with cerebral palsy

Volunteer Activities

Woodbridge Senior High School Alumni Scholarship Foundation, Volunteer August 2013 – Present
 Knights of Columbus, Volunteer October 2008 – July 2017

Publications

Medical Sterilization System for NASA Space Exploration Missions, IEEE