Noel Benjamin Nelson
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WORK EXPERIENCE	**Oak Ridge National Laboratory**	**11/2020-present**
	Research and Development Assistant Staff Member – Space Nuclear Systems • Provide neutronics analysis, shielding, and design support of complex nuclear systems • Publish results in peer reviewed reports. • Propose new ideas of scientific merit and develop them to meet sponsor goals and missions. • Regularly communicate the status of project milestones to stakeholders. • Act as a project thrust leader and develop annual work scope and packages. • Assist the consideration, selection, and mentoring of Minority Serving Institution Partnership Program (MSIPP) student researchers. **Supervisor: Jorge Navarro** **Supervisor's Phone: 865-279-9245**	
	National Nuclear Security Administration (NNSA) Production Office (NPO)	**06/2018-11/2020**
	Nuclear Criticality Safety (NCS) Engineer • Provide federal oversight of the contractor program • Conduct assessments of the site's NCS program • Review technical reports, procedures, calculations, and analysis • Observe and ensure the safe conduct of operations **Supervisor: John Wood** **Supervisor's Phone: 865-241-1405**	
	Pacific Northwest National Laboratory, Battelle	**06/2017-06/2018**
	National Nuclear Security Administration (NNSA) Graduate Fellow • Provide technical guidance on R&D projects to program managers • Review R&D proposals • Coordinate development of an interlaboratory database of past projects **Supervisor: Dr. David LaGraffe** **Supervisor's Phone: 202-586-1928**	
EDUCATION	North Carolina State University (NCSU)	
	Raleigh, NC US	
	Master's Degree of Science received -12/2014 PhD in Nuclear Engineering received -12/2018	
	Total GPA: 3.846 out of 4.0	
	Oregon State University (O.S.U.) Honors College	
	Corvallis, Oregon US	
	Bachelor's Degree of Science received -8/2012	
	Major: Nuclear Engineering	
	Total GPA: 3.83 out of 4.0	
	Honors: graduated Magna Cum Laude, and received an O.S.U. Radiation Center Department Scholarship	

LANGUAGES	**English:** Primary Language **Spanish:** Secondary Language (reading level)	
AFFILIATIONS	Young Member of the American Nuclear Society (national chapter) Alumni Member of O.S.U. Honors College (Inactive) Associate Member of Sigma Xi Scientific Research Society.	Knoxville Gay Men's Chorus Alumni Member Alumni Member of Kappa Kappa Psi honorary band service fraternity Member of the Fusion Martial Arts Club
VOLUNTEER AND COMMUNITY SERVICE	Knoxville Gay Men's Chorus Operations Committee Volunteer Coordinator (2019-2020). Sleeves For Needs (Food Bank) Volunteer (2020).	

REFERENCES	**Michael B. Smith**	Oak Ridge National Laboratory
	Phone Number:	865-314-9717
	Reference Type:	Occupational, Project Manager and Staff Scientist
	William Kauerz, III	Department of Energy, NNSA Production Office (Y-12)
	Phone Number:	(865) 576-2972
	Reference Type:	Occupational, Former NCS Program Manager
	Dr. Yousry Azmy	N.C.S.U. Nuclear Engineering Department
	Phone Number:	(919) 515-3385
	Reference Type:	Academic (Graduate Advisor), PhD Committee Co-chair

ADDITIONAL INFORMATION	• Experience with Mathematica, MATLAB, CASMO, MCNP, SCALE (i.e. DENOVO, KENO, MAVRIC), and DAKOTA software. • Experienced in Fortran and Python programming languages • Experience with Open MPI based parallel processing • I hold a clearance, and I am a U.S. Citizen. • Have a DOE-STD-1173 Criticality Safety Functional Area Qualification. • Completed training courses at Y-12 and Oak Ridge National Laboratory including: • Basic radiation worker training (unescorted access to low radiation exposure areas) • Nondestructive Analysis (NDA) and software training for the Holdup Measurement System-4 (HMS-4) • Experience with Microsoft Office (Word, Excel, Access, and Publisher)

PUBLICATIONS	• "The Sensitivity of Three Terrestrial Bacteria to a Multi-Mission Radioisotope Thermoelectric Generator," *14th International Conference on Radiation Shielding* (Conference Paper, September 2022) • ORNL/TM-2021/2269, "Radiation Shielding Analysis of Niowave's Uranium Target Assembly 2 (UTA-2) Facility for Molybdenum Production" (OSTI Report, July 2022) • "Virtual Interaction with Physics Enhanced Reality (VIPER): Using Augmented Reality to Visualize and Interact with Ionizing Radiation Data," *ANS Transactions* (Conference Paper, June 2022) • ORNL/SPR-2021/2020, "Technical Assessment of Radioisotope Power System Design for Zeno Power Systems" (OUO Sponsor Report, July 2021) • "Validation and Uncertainty Quantification of the Data Integration with Modeled Predictions (DIMP) Inverse Radiation Transport Model For Holdup Measurements" (PhD Thesis, Fall 2018)