

Adam Drescher

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EDUCATION	University of Texas at Austin , Austin, Texas, USA	
	Doctor of Philosophy (PhD) in Nuclear Engineering	Expected Dec 2019
	Master of Science (MS) in Nuclear Engineering	Jan 2016 – May 2017
	• Cumulative GPA: 3.9/4.0	
PUBLICATIONS	Bachelor of Science (BS) in Radiation Physics	Jan 2013 – Dec 2015
	• Cumulative GPA: 3.7 / 4.0	
	Master's Thesis	May 2017
	Characterization of LaBr ₃ :Ce Detectors in a Gamma-Gamma Coincidence Configuration	
RESEARCH EXPERIENCE	Journals	
	1)	Jul 2018
	A. Drescher et al., Gamma-gamma coincidence in neutron activation analysis, <i>Journal of Radioanalytical and Nuclear Chemistry</i> , Volume 317, July 2018, Pages 1-6, ISSN 1588-2780. https://doi.org/10.1007/s10967-018-6033-8	
	2)	Apr 2017
	A. Drescher et al., Gamma-gamma coincidence performance of LaBr ₃ :Ce scintillation detectors vs HPGe detectors in high count-rate scenarios, <i>Applied Radiation and Isotopes</i> , Volume 122, April 2017, Pages 116-120, ISSN 0969-8043. https://doi.org/10.1016/j.apradiso.2017.01.012 .	
	PhD Dissertation	Aug 2017 – Dec 2019
	Leveraging Machine Learning for Predictions on Uranium Fission Product Data	
	• Built prediction models for inferring uranium enrichment across multi-variate ranges of unknown parameters.	
	Master's Thesis	Jan 2016 – May 2017
	Characterization of LaBr ₃ :Ce Detectors in a Gamma-Gamma Coincidence Configuration	
	• Built and characterized the performance of a new detection system for the analysis of spent nuclear fuel.	
	Nuclear Engineering Science Laboratory Synthesis	May 2017 – Aug 2017
TEACHING EXPERIENCE	Summer Research Intern, Oak Ridge National Laboratory	
	• Performed statistical analysis for inferring reactor core burnup based on isotopic vector of arbitrary core samples with position independence.	
	Nuclear Engineering Science Laboratory Synthesis	May 2016 – Aug 2016
	Summer Research Intern, Oak Ridge National Laboratory	
	• Measured fission products in order to quantify mixed uranium and plutonium samples.	
	Nuclear Engineering Teaching Laboratory	Aug 2014 – Dec 2015
	Undergraduate Research Student, University of Texas at Austin	
	• Developed a lanthanum bromide gamma coincidence radiation detection system.	
	• Developed practical solutions for experimental setups utilizing 3D printing.	
	• Performed periodic reactor operations, maintenance, and surveillance in accordance with NRC regulations.	
	Teaching Assistant, Concepts in Nuclear and Radiation Engineering	Jun 2018 – Jun 2018
	Introductory undergraduate study abroad course in Ferrara, Italy	
TEACHING EXPERIENCE	• Prepared and presented course lectures in collaboration with the professor.	
	• Provided the students with logistical guidance and assistance throughout study abroad.	
	Teaching Assistant, Radiation Protection Laboratory	May 2018 – May 2018
	Mixed undergraduate and graduate level course in the Mechanical Engineering Department at UT Austin	
	• Guided students through daily laboratory experiments and graded laboratory reports.	
TEACHING EXPERIENCE	Teaching Assistant, Gamma-Ray Spectrometry	Jan 2017 – May 2017
	Graduate level course in the Mechanical Engineering Department at UT Austin	
	• Guided students through biweekly laboratory experiments and provided instructions for laboratory report writing.	

	Teaching Assistant, Health Physics & Nuclear Environmental Protection Aug 2016 – Dec 2016 Undergraduate level course in the Mechanical Engineering Department at UT Austin <ul style="list-style-type: none"> • Presented many lectures throughout the semester to fill in for professor absences. • Graded homework assignments, exams, and laboratory reports and provided feedback accordingly. 	
	Research Mentor Aug 2016 – Dec 2016 <ul style="list-style-type: none"> • Guided an undergraduate research assistant for 10 hours per week through experiments which provided valuable data for my Master's Thesis. 	
PRESENTATIONS & CONFERENCE PROCEEDINGS	2018 International Conference on Nuclear Engineering Jul 2018 Revamping of a Graduate Radiochemistry Course for Nuclear Forensics Applications <ul style="list-style-type: none"> • Oral presentation, poster presentation, and conference proceedings paper publication. 	
	2018 Methods and Applications of Radioanalytical Chemistry Apr 2018 Neutron Activation Analysis and Gamma-Gamma Coincidence <ul style="list-style-type: none"> • Poster presentation and journal publication. 	
	2017 IEEE Nuclear Science Symposium and Medical Imaging Conference Oct 2017 Developing Support Vector Machine Prediction Capabilities of Uranium Enrichment Based on Gamma-Gamma Coincidence Signatures <ul style="list-style-type: none"> • Poster presentation and extended abstract conference proceedings. 	
	Global 2017 International Nuclear Fuel Cycle Conference Sep 2017 Modeling a U.S. Equilibrium Closed Fuel Cycle with Waste Product Comparisons <ul style="list-style-type: none"> • Oral presentation and extended abstract conference proceedings. 	
	NESLS Poster Session Aug 2017 Characterization of Machine Learning Performance for Plutonium Production Predictions <ul style="list-style-type: none"> • Poster presentation and abstract proceedings. 	
	University Program Review Jun 2017 Characterization of LaBr ₃ :Ce Detectors in a Gamma-Gamma Coincidence Configuration <ul style="list-style-type: none"> • Poster presentation and summary proceedings. 	
	NESLS Poster Session Aug 2016 Measurements of Short-Lived Fission Products from ²³³ U, ²³⁵ U, and ²³⁹ Pu for the Rapid Characterization of Mixed Actinide Samples <ul style="list-style-type: none"> • Poster presentation and abstract proceedings. 	
ACADEMIC HONORS & AWARDS	Graduate Fellowship Sep 2016 – Sep 2020 Consortium for Nonproliferation Enabling Capabilities <ul style="list-style-type: none"> • Provides annual stipend and coverage for all tuition and fees for four years 	
	Graduate Fellowship Jan 2016 – Jan 2020 Cockrell School of Engineering <ul style="list-style-type: none"> • Provides annual stipend for progressing towards a PhD with a GPA of 3.50 	
	University Honors 2013 – 2015 University of Texas at Austin	
CAMPUS ACTIVITIES	Longhorn Powerlifting Team , University of Texas at Austin Aug 2014 – May 2015 <ul style="list-style-type: none"> • Competitive weightlifting team that earned the USAPL men's collegiate national title in 2015. 	
SKILLS	Python, MATLAB, Microsoft Office, L ^A T _E X	
INTERESTS	Weightlifting, saxophone, motorcycling.	

[Compiled on 2019-03-23 for Periodic Update]