

Nathan S. Ryan

CONTACT INFORMATION	Graduate Research Assistant <i>University of Illinois, Urbana-Champaign</i> <i>Nuclear, Plasma, and Radiological Engineering</i>	mobile: (708) 567-0002 e-mail: nathanryan.nuc@gmail.com website: nsryan.github.io
RESEARCH INTERESTS	Nuclear fuel cycle simulation and analysis, energy regulation, nuclear energy policy, and scientific computation.	
MS	University of Illinois Urbana-Champaign, NUCLEAR, PLASMA, AND RADIOLOGICAL ENGINEERING Aug 2022 – est. Dec 2024	
BS	University of Illinois Urbana-Champaign, ENGINEERING PHYSICS Aug 2019 – Aug 2022	
RESEARCH EXPERIENCE	Oak Ridge National Laboratory, Oak Ridge, TN <i>Graduate Summer Research Assistant,</i> <i>Research and Test Reactor Physics Group</i> June 2024 – Aug 2024	
	University of Illinois at Urbana-Champaign, Urbana, IL <i>Graduate Research Assistant, Nuclear Plasma and Radiological Engineering</i> <i>Undergraduate Research Assistant</i> <i>Advanced Reactors and Fuel Cycles group.</i> Aug 2022 – present May 2020 – Aug 2022	
HONORS AND AWARDS	NPRE, Students Award for Excellence in Graduate Service ANS, Student Sections Committee Commendation for Service and Leadership NPRE, Students Award for Excellence in Undergraduate Service UIUC, Dean's List Department of Physics, Excellence in Physics Award	2023 2023 2022 2020 2020
JOURNAL PUBLICATIONS	[1] A. M. Bachmann, R. Fairhurst-Agosta, Z. Richter, N. Ryan , and M. Munk. Enrichment dynamics for advanced reactor HALEU support. <i>EPJ Nuclear Sciences & Technologies</i> , 7:22, 2021. Publisher: EDP Sciences. URL: https://www.epj-n.org/articles/epjn/abs/2021/01/epjn210024/epjn210024.html , doi:10.1051/epjn/2021021	
TECHNICAL REPORTS	[2] S. G. Dotson, A. M. Bachmann, Z. M. Richter, N. R. Panczyk, N. S. Ryan , A. C. Balla, and E. R. Fanning. Economic and Carbon Impacts of Potential Illinois Nuclear Plant Closures: The Cost of Closures. Technical Report UIUC-ARFC-2021-02, University of Illinois at Urbana-Champaign, Urbana, IL, May 2021. URL: github.com/arfc/2021-04-nm-illinois	
POSTER PRESENTATIONS	[3] N. Ryan and N. Panczyk. Using an illinois energy model to demonstrate the potential impact of proactive nuclear activism. Poster presented at <i>American Nuclear Society Student Conference</i> , 2022. Champaign, IL	
INVITED TALKS	Institute for Genomic Biology , Setting Boundaries in Graduate School, <i>Panel.</i> ANS , Social Media for Local and Student Section Members Webinar, <i>Panel.</i> Memphis Rise Academy , Careers in Nuclear, <i>Panel.</i> U. Tennessee, Knoxville , Navigating Conversations with Advisors, Managers, and Supervisors, <i>Panel.</i> ANS U. Illinois , How to Present at a Conference, <i>Invited Talk.</i> ANS U. Illinois , How to Create a Conference Abstract, <i>Invited Talk.</i> U. Illinois , Physics and Astronomy Convocation, <i>Student Remarks.</i> Tinley Park High School , Introduction to Nuclear Science & Careers, <i>Seminar.</i> TEDxYouth , Evolutionary Anthropology and Youth in Science, <i>Invited Speaker.</i>	Aug 24, 2023 Aug 3, 2023 May 31, 2023 April 14, 2023 March 13, 2023 Jan 23, 2023 May 15, 2022 Jan 17, 2020 Feb 15, 2019

SCIENTIFIC COMPUTING TEACHING	Computational Resource Access Network , Virtual	2022 – present
	Introduction to Python, Numerical Methods, Parallel Programming, and Best Practices	
	Worldwide Youth in Science and Engineering , Urbana, IL	July 2022, 2023
	Introduction to Python, and Best Practices for Beginners	
SCIENTIFIC COMPUTING SKILLS	Languages	bash, C++, Python
	Build Systems	make, CMake
	Databases	SQL
	Test Frameworks	PyTest
	Version Control	git
	Other Tools	Sphinx, L ^A T _E X, Mathematica
PROFESSIONAL SERVICE	Delegate , Nuclear Engineering Student Delegation	2023, 2024
	Vice Chair , Student Sections Committee, ANS	2023 – present
	Subcommittee Chair , Student and Young Member Liaison Committee, ANS	2023 – present
	Chair , Student Conference Finance Subcommittee, ANS	2022 – 2023
	Chair , Winter Meeting Student Program, ANS	2022
	Organizer , Young Professionals Congress, ANS	2022 – 2023
	Public Relations Officer , U. Illinois ANS student section	2020 – 2022
	Coordinator , Engineering Outreach Bureau, Grainger Engineering Council	2020 – 2022
	Media Coordinator , 2022 ANS Student Conference	2019 – 2022
DEPARTMENTAL SERVICE	Committee Member , Diversity, Equity, and Inclusion Committee	2022 – present
	Committee Chair , Graduate Student Advisory Committee	2022 – 2023
	Camp Advisor , Worldwide Youth in Science and Engineering	2022 – present