

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: nsryan2@illinois.edu website: nsryan.github.io
RESEARCH INTERESTS	Nuclear fuel cycle simulation and analysis, energy system modeling, and scientific computation.	
MS	University of Illinois Urbana-Champaign, NUCLEAR, PLASMA, AND RADIOLOGICAL ENGINEERING Aug 2022 – est. May 2024	
BS	University of Illinois Urbana-Champaign, ENGINEERING PHYSICS Aug 2019 – Aug 2022	
RESEARCH EXPERIENCE	University of Illinois at Urbana-Champaign, Urbana, IL <i>Graduate Research Assistant, Nuclear Plasma and Radiological Engineering</i> Aug 2022 – Present <i>Undergraduate Research Assistant</i> May 2020 – Aug 2022 Advanced Reactors and Fuel Cycles group.	
HONORS AND AWARDS	NPPE, Students Award for Excellence in Graduate Service	2023
	ANS, Student Sections Committee Commendation for Service and Leadership	2023
	NPPE, Students Award for Excellence in Undergraduate Service	2022
	UIUC, Dean's List	2020
	Department of Physics, Excellence in Physics Award	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	
INVITED TALKS	Memphis Rise Academy , Careers in Nuclear <i>Panel</i>	May 31, 2023
	U. Tennessee, Knoxville , Navigating Conversations with Advisors, Managers, and Supervisors, <i>Panel</i> .	April 14, 2023
	ANS U. Illinois , How to Present at a Conference, <i>Invited Talk</i> .	March 13, 2023
	ANS U. Illinois , How to Create a Conference Abstract, <i>Invited Talk</i> .	Jan 23, 2023
	U. Illinois , Physics and Astronomy Convocation, <i>Student Remarks</i> .	May 15, 2022
	Tinley Park High School , Introduction to Nuclear Science & Careers, <i>Seminar</i> .	Jan 17, 2020
	TEDxYouth , Evolutionary Anthropology and Youth in Science, <i>Invited Speaker</i> .	Feb 15, 2019
SCIENTIFIC COMPUTING TEACHING	Computational Resource Access Network , Vitruvial	Feb–April, 2023
	Intro to Python, Numerical Methods, Parallel Programming, and Best Practices	
	Worldwide Youth in Science and Engineering , Vitruvial	July 2022, 2023
	Intro 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^AT_EX, Mathematica

PROFESSIONAL SERVICE	Delegate , Nuclear Engineering Student Delegation	2023
	Vice Chair , Student Sections 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