

# Nathan S. Ryan

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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: <a href="mailto:nathanryan.nuc@gmail.com">nathanryan.nuc@gmail.com</a> website: <a href="https://nsryan.github.io">nsryan.github.io</a>
RESEARCH INTERESTS	Nuclear fuel cycle simulation and analysis, energy system modeling, and scientific computation.	
MS	<b>University of Illinois Urbana-Champaign</b> , NUCLEAR, PLASMA, AND RADIOLOGICAL ENGINEERING	<b>Aug 2022 – est. May 2024</b>
BS	<b>University of Illinois Urbana-Champaign</b> , ENGINEERING PHYSICS	<b>Aug 2019 – Aug 2022</b>
RESEARCH EXPERIENCE	<b>University of Illinois at Urbana-Champaign</b> , Urbana, IL <i>Graduate Research Assistant, Nuclear Plasma and Radiological Engineering</i> <i>Undergraduate Research Assistant</i> Advanced Reactors and Fuel Cycles group.	<b>Aug 2022 – Present</b> <b>May 2020 – Aug 2022</b>
HONORS AND AWARDS	NPPE, Students Award for Excellence in Graduate Service ANS, Student Sections Committee Commendation for Service and Leadership NPPE, Students Award for Excellence in Undergraduate Service UIUC, Dean's List Department of Physics, Excellence in Physics Award	<b>2023</b> <b>2023</b> <b>2022</b> <b>2020</b> <b>2020</b>
JOURNAL PUBLICATIONS	[1] A. M. Bachmann, R. Fairhurst-Agosta, Z. Richter, <b>N. Ryan</b> , and M. Munk. Enrichment dynamics for advanced reactor HALEU support. <i>EPJ Nuclear Sciences &amp; Technologies</i> , 7:22, 2021. Publisher: EDP Sciences. URL: <a href="https://www.epj-n.org/articles/epjn/abs/2021/01/epjn210024/epjn210024.html">https://www.epj-n.org/articles/epjn/abs/2021/01/epjn210024/epjn210024.html</a> , doi:10.1051/epjn/2021021	
TECHNICAL REPORTS	[2] S. G. Dotson, A. M. Bachmann, Z. M. Richter, N. R. Panczyk, <b>N. S. Ryan</b> , 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: <a href="https://github.com/arfc/2021-04-nm-illinois">github.com/arfc/2021-04-nm-illinois</a>	
INVITED TALKS	<b>Institute for Genomic Biology</b> , Setting Boundaries in Graduate School, <i>Panel</i> . <b>ANS</b> , Social Media for Local and Student Section Members Webinar, <i>Panel</i> . <b>Memphis Rise Academy</b> , Careers in Nuclear, <i>Panel</i> . <b>U. Tennessee, Knoxville</b> , Navigating Conversations with Advisors, Managers, and Supervisors, <i>Panel</i> . <b>ANS U. Illinois</b> , How to Present at a Conference, <i>Invited Talk</i> . <b>ANS U. Illinois</b> , How to Create a Conference Abstract, <i>Invited Talk</i> . <b>U. Illinois</b> , Physics and Astronomy Convocation, <i>Student Remarks</i> . <b>Tinley Park High School</b> , Introduction to Nuclear Science & Careers, <i>Seminar</i> . <b>TEDxYouth</b> , Evolutionary Anthropology and Youth in Science, <i>Invited Speaker</i> .	<b>Aug 24, 2023</b> <b>Aug 3, 2023</b> <b>May 31, 2023</b> <b>April 14, 2023</b> <b>March 13, 2023</b> <b>Jan 23, 2023</b> <b>May 15, 2022</b> <b>Jan 17, 2020</b> <b>Feb 15, 2019</b>
SCIENTIFIC COMPUTING TEACHING	<b>Computational Resource Access Network</b> , Virtual Intro to Python, Numerical Methods, Parallel Programming, and Best Practices <b>Worldwide Youth in Science and Engineering</b> , Virtual Intro to Python, and Best Practices for Beginners	<b>Feb–April, 2023</b> <b>July 2022, 2023</b>

SCIENTIFIC COMPUTING SKILLS	<b>Languages</b>	bash, C++, Python
	<b>Build Systems</b>	make, CMake
	<b>Databases</b>	SQL
	<b>Test Frameworks</b>	PyTest
	<b>Version Control</b>	git
	<b>Other Tools</b>	Sphinx, L <sup>A</sup> T <sub>E</sub> X, Mathematica
PROFESSIONAL SERVICE	<b>Delegate</b> , Nuclear Engineering Student Delegation	<b>2023</b>
	<b>Vice Chair</b> , Student Sections Committee, ANS	<b>2023–present</b>
	<b>Chair</b> , Student Conference Finance Subcommittee, ANS	<b>2022–2023</b>
	<b>Chair</b> , Winter Meeting Student Program, ANS	<b>2022</b>
	<b>Organizer</b> , Young Professionals Congress, ANS	<b>2022–2023</b>
	<b>Public Relations Officer</b> , U. Illinois ANS student section	<b>2020–2022</b>
	<b>Coordinator</b> , Engineering Outreach Bureau, Grainger Engineering Council	<b>2020–2022</b>
DEPARTMENTAL SERVICE	<b>Media Coordinator</b> , 2022 ANS Student Conference	<b>2019–2022</b>
	<b>Committee Member</b> , Diversity, Equity, and Inclusion Committee	<b>2022–present</b>
	<b>Committee Chair</b> , Graduate Student Advisory Committee	<b>2022–2023</b>
	<b>Camp Advisor</b> , Worldwide Youth in Science and Engineering	<b>2022–present</b>