

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: 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 | NPRE, Students Award for Excellence in Graduate Service | 2023 |
| | ANS, Student Sections Committee Commendation for Service and Leadership | 2023 |
| | NPRE, 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 | ANS , Social Media for Local and Student Section Members Webinar <i>Panel</i> | August 3, 2023 |
| | 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 , Vitruval | Feb–April, 2023 |
| | Intro to Python, Numerical Methods, Parallel Programming, and Best Practices | |
| | Worldwide Youth in Science and Engineering , Vitruval | 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
Other Tools

git
Sphinx, L^AT_EX, Mathematica

PROFESSIONAL
SERVICE

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| 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

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| 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 |