Nathan Ryan

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# Dear Hiring Manager,

I am writing to express my interest in the Nuclear Energy Legislation Analyst position at the Breakthrough Institute. As a graduate student specializing in Nuclear, Plasma, and Radiological Engineering at the University of Illinois Urbana-Champaign, I have gained experience in nuclear energy technology, policy, and regulation, which I am eager to leverage in support of Breakthrough’s mission to advance the role of nuclear energy in a sustainable, secure, and prosperous future. I am particularly excited about the opportunity to contribute to the legislative and regulatory discourse surrounding nuclear fuel cycle systems for advanced reactors.

Over the course of my graduate and undergraduate research, I have examined nuclear policy issues, from the environmental and economic impacts of nuclear fuel cycle transitions to analyzing regulatory frameworks for emerging nuclear technologies. For instance, I have worked on policy assessments related to the transition from traditional Light Water Reactors (LWRs) to TRISO-fueled reactors, evaluating both the technical and regulatory challenges involved.

In addition to my technical expertise, I have developed significant policy experience. As a delegate for the Nuclear Engineering Student Delegation (NESD), I participated in advocating for increased nuclear research funding and policy reforms. I also worked directly on clean energy legislation efforts in Illinois, including supporting the Climate and Equitable Jobs Act, which advanced significant clean energy policies, including nuclear energy. These experiences have given me a solid understanding of the intricacies of nuclear policy at both the state and federal levels, as well as how to engage with policymakers to advocate for nuclear energy initiatives.

My strong communication skills, honed through writing technical reports, policy briefs, and presenting research to non-technical audiences, will help me effectively communicate the importance of nuclear energy to a broad range of stakeholders. Breakthrough’s commitment to innovative and evidence-based policy solutions resonates deeply with my own values, and I am excited about the prospect of contributing to such a forward-thinking organization. I am confident that my combination of technical expertise, policy engagement, and experience with regulatory processes will allow me to make a meaningful contribution to Breakthrough’s growing nuclear energy research and policy team.

Thank you for considering my application. I look forward to the opportunity to discuss how my skills and experiences can contribute to Breakthrough’s work in advancing nuclear energy legislation.

Best regards,

Nathan Ryan