

September 23, 2025

**Alex Forsyth** – Undergraduate Research Assistant

Dear Reviewers -

I am writing to express my strong support for Alex Forsyth's application for an internship.

Alex spent the summer (May-August 2025) working as a research assistant in my group at the Reactor Materials Testing Laboratory (RMTL) at Queen's University. The RMTL is a Class II CNSC licensed facility, where we seek to use high energy ions to produce irradiation damage in materials that emulate the damage caused by the neutron flux of a reactor.

Working within the team at RMTL, Alex was given responsibility for design, building and testing of a sample changer, allowing different samples to be placed in the irradiating zone. This project required integration of elements of mechanical design, as well as feedback control – both electronic and software. The output of his project will directly support some of our research being carried out in collaboration with Canadian Nuclear Laboratories.

Alex was an exemplary summer project student. He collaborated effectively with the RMTL staff to understand the design needs, and then to carry out prototype design, assembly and testing, as well as overcoming the inevitable challenges to deliver an effective final design. He continues to work with us this fall term to assemble and test that final design. His engineering skills are strong: in terms of theory of design, but also in using them to develop practical real-world solutions.

In terms of the working environment, Alex was a great team member, contributing to the projects of, and supporting other summer students. He completed the radiation and lab safety training required to work at RMTL, and effectively followed safe working rules. Oral reports / presentations on progress and the written final report were of high quality. I would be happy to hire him again when he returns from his internship year.

I was particularly impressed by the combination of his attitude, progress and deliverables over the summer. For the last 15 years I have taken 3 or 4 summer students for summer project work each year. They are selected after a written application and interview, from a large pool of applicants. Within this already select group I would place Alex within the top 15%, in terms of real-world quality of the engineering deliverables produced.

Sincerely,



**Mark Daymond**, PhD, PEng, FCAE.

Professor

Canada Research Chair in Mechanics of Materials & UNENE Research Chair in Nuclear Materials  
Department of Mechanical and Materials Engineering