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Dr. Misa Cowee,

Space Science & Applications Group
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It is a pleasure to submit my cover letter and résumé for position IRC59421 in the Space Science & Application Group at Los Alamos National Laboratory. With significant experience in MCNP and Python modeling of radiation detectors and their responses, I am ready to become an immediate and effective member of the ISR-1 team. For your consideration, I have provided the following summary of my knowledge, skills, and accomplishments relevant to this position.

- Master's Degrees in Nuclear Engineering from the University of Wisconsin - Madison and Biophysics from the Medical College of Wisconsin.
- Over seven years of research and technical experience in the physical sciences.
- Gained knowledge and experience on the design and performance of a variety of radiation detector systems while collaborating with ISR-1 on the Nuclear Detection Figure of Merit (NDFOM) project.
- Performed detailed modeling and simulation of radiation detectors and their environment, demonstrated with the NDFOM project and through recent publications and developments within MCNP (Pub. 1).
- Advanced data and statistical analysis skills acquired through processing large clinical imaging datasets and analyzing multiple MCNP simulation results.
- Significant experience in proper software development methods, such as software design, unit testing, verification, and performance evaluation.
- Developed methods for integrating voxel human phantom geometries with the MCNP unstructured mesh radiation transport capability.
- Effective in technical communication, demonstrated through a history of accepted abstracts, publications, and conference presentations in multiple different fields. A full publication list can be found in the attached résumé.
- Patented a segmented reconstruction method for reducing artifacts in Magnetic Resonance Imaging.
- Collaborated on multiple large-scale technical reports, including assisting with writing research grants and as a contributing editor of the soon-to-be-released *MCNP6.2 User's Manual* (Pub. 2).
- Proven ability to work and communicate with a diverse research team, demonstrated through collaboration on projects involving medical doctors, imaging technicians, research scientists, and fellow students.
- Strong desire to continue a career focusing on internal and external collaboration for securing funding and performing scientific research.
- Previously acquired DOE Q-level security clearance, and paperwork submitted June, 2016 for its reinstatement.

With a wide range of experiences at Los Alamos National Laboratory, I look forward to continuing my career serving the Lab and the ISR-1 mission. Attached to this application, you will find my résumé for your review. I appreciate your consideration and thank you for your time.

Sincerely,
Casey Anderson, M.Sc.

SELECTED PUBLICATIONS

1. Casey Anderson and Gregg McKinney. "MCNP6 Built-in High Level Detector Responses". In: *2017 IEEE Nuclear Science Symposium and Medical Imaging Conference*. (Atlanta, Georgia). Oct. 2017,
2. Editors. "MCNP6.2 User's Manual". In: *LANL report* (2017)