Johns Hopkins University

Dear Team Hiring Manager,

As a budding and motivated physicist, I am extremely interested in joining your team to lead and contribute to radiation efforts on Civil Space and National Security Space missions. I would like to apply for the position.

I am currently a post-doctoral researcher at the University of California, Berkeley with expertise in particle transport simulations working in the field of particle/nuclear physics.

With regard to my ability to meet the specific requirements of this job:

- **Education:** Received PhD in 2016 with 6 years of experience working on particle transport simulations and algorithm development for novel particle detection technologies.
- **Experience with radiation effects and modeling:** 8 years of experience in particle physics and 2 years of experience in nuclear physics working with radiation effects and modeling in a cryogenic (\sim 10 mK) vacuum environment similar to that in deep space.
- Effective written and oral communication skills: Contributed work published in various journals, and oral presentations given at institutions such as Lawrence Livermore National Laboratory, Fermilab, Argonne National Laboratory, Los Alamos National Laboratory.
- Ability to work with a variety of people across engineering and science disciplines: Worked in 3 multinational collaborations comprised of physicists and engineers in Japan, Italy, US. Mentored PhD-level students and increased team productivity by organizing group initiatives.
- **Experience with radiation transport codes:** 8 years of experience working with Geant4.
- Experience with radiation transport problems in structures: Past simulation work involves nuclear decay radiation through various materials such as steel, lead, copper, Teflon with the CUORE double beta decay experiment. Other work involved modeling cosmogenic muons and studying their radiation effects in simulations with the KamLAND neutrino detector experiment.
- Ability to obtain secret clearance: US citizen.

I would appreciate an opportunity to meet and discuss my application at an interview. I have also sent my resume and other relevant documents for your consideration. Please feel free to let me know if you have any questions.

Thank you for your time,

Michinari Sakai