

Dear Team Hiring Manager,

As a budding technologist, I am interested in joining your Modeling, Simulation, and Analysis Team as a thought leader. I would like to apply for position.

I am currently a post-doctoral researcher at the University of California, Berkeley with expertise in computational physics simulations and large-scale data analysis working in the field of particle/nuclear physics.

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

- **Education:** PhD in experimental particle physics (2016) with emphasis on computational physics modeling/simulations, data analysis, and algorithm development for novel particle detection technologies.
- **Ability to obtain DOD Secret security clearance:** US citizen.
- **GPA:** 3.97/4.00 (graduate school), 4.33/4.50 (undergraduate school).
- **Understanding of Monte Carlo and distributed simulation techniques:** 8 years of experience designing particle/nuclear physics simulations modeling particle/radiation transport, nuclear decays, photon propagation at high-performance computing clusters at NERSC (Lawrence Berkeley National Laboratory, USA), LNGS (Gran Sasso National Laboratory, Italy), and Tohoku University (Japan). Post-doctoral work involves mechanical stress/thermal simulations using SolidWorks/ComSol.
- **Knowledge of statistical sciences and data analytics:** Over 8 years of experience analyzing large-scale simulated/real data using statistical analysis tools in ROOT/Python. Typical work involves uncertainty analysis, trade studies, sensitivity studies.
- **Good communication skills:** Talks given at institutions such as Lawrence Livermore National Laboratory, Sanford Underground Research Facility, Fermilab, Argonne National Laboratory. Mentored PhD-level students at UC Berkeley/UCLA and increased productivity by organizing group initiatives.
- **Strong team player:** Worked with 3 multi-national collaborations of physicists and engineers in Japan, Italy, and US. Contributed independent original work to specific area of research within collaborations.
- **Familiarity Unix / Linux skills:** Over 8 years of experience working in a Linux environment for simulation/analysis work. Graduate study involved working as Linux system administrator for local computing cluster of 64 nodes.
- **Results oriented team player, creative thinker:** Past accomplishments include leading simulation/analysis effort for team to develop novel directional particle detection algorithms in monolithic particle detectors.

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

Thank you for your time,

Michinari Sakai

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