



Mathematics and/or Physics

Job Summary:

Responsible for performing design, studies and analyses of scintillator/semiconductor radiation detectors and their manufacturing processes, including using Monte-Carlo techniques for simulation, characterization and optimization of scintillator, semiconductors, and geometries of detectors used in nuclear detection. The ideal candidate would have in-depth knowledge of radiation detectors specifically pertaining to design, simulation, optimization and instantiation thereof. Experience using one or more of the following in the pursuit of demonstrated novel device development is a plus: MEDICI for semiconductor device simulation, GATE or GEANT for detector simulation, and DETECT for scintillator simulation. Additionally, the candidate would be versed in the design/simulation/characterization/and measurement of the electronics chain associated with such detectors, including having: An in-depth understanding of relevant noise terms, and previous involvement in mixed-signal ASIC development and testing. Hands on MCM CAD design using low noise design and layout techniques within the context of "Design for manufacture" and "Design for test" methodologies. The successful candidate will become a core part of our engineering team and will be researching, developing, and implementing mathematical algorithms. A majority of the work will involve writing and working with C++ code to implement these algorithms. As we're breaking new ground and most of what we are doing has never been done before, the successful candidate will need to be comfortable working on challenging problems without obvious solutions. We are seeking inspired, creative thinkers who will invent novel approaches.

Knowledge, Skills, and Abilities:

- Ph.D. or M.S. from a top-rated university in applied mathematics, scientific computing, theoretical physics (preferably with an emphasis on computational physics), or similar subject area.
- Extensive experience with scientific computing / numerical computation.
- Extensive experience with C++ environments.
- While not a requirement, a background in or strong understanding of physics is very much preferred. Previous work or experience in the semiconductor is viewed favorably.
- The candidate must have disciplined programming practice, good engineering judgment and analytical skill, and strong written and verbal communication skills

Please send resumes to:

Evex Inc.,
857 State Road
Princeton, NJ 08540
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