C++ Software Engineer at CEMWorks Inc.

Job Overview

CEMWorks Inc. is seeking to hire a new member of the R&D team to facilitate the work on current and future projects with the focus on software development for computational physics. The ideal candidate for this position is interested in efficient C++ implementations of challenging algorithms, as well as the best practices for the design of modular, testable, and extendible software architecture.

Writing C++ code to implement novel and well-established concepts for fast and accurate solution of various computational challenges will constitute the major part of the job. The new team member is also expected to participate in code testing/verification/validation, fixing software errors and present the work results in a form of research reports, presentations, conference and journal papers.

Responsibilities

- Develop innovative and novel algorithms with the focus on computational sciences
- Carefully design new components for the existing software architecture and propose improvements for performance, extendibility, and maintainability
- Write well-designed, testable computer code that can be integrated into the existing framework
- Prepare software documentation according to company's standards
- Deploy software in a high-performance environment, perform and analyze numerical simulations

Qualifications

- B.Sc. degree in Computer Science or Computer Engineering. M.Sc. or Ph.D. degree in quantitative research fields (engineering, physics, mathematics, etc.) is an advantage
- C++ fluency with good understanding of new C++11/14/17 features and desire to write beautiful and efficient code
- Knowledge of commonly used design patterns and object-oriented programming
- Knowledge of numerical techniques for computational sciences is a plus
- Experience with coding for high-performance computing environment and parallel programming technologies (OpenMP, TBB, MPI, etc.) is an advantage
- The desire to work on cutting-edge techniques for computational physics applied to real-world projects

Apply by email to jobs@cemworks.com