High Performance Computing Software Developer

About EMWorks

EMWorks provides best-in-class electromagnetic simulation software for electrical and electronics design with Multiphysics capabilities. The core technology of EMWorks is based on computational electromagnetics, especially the finite element method. Applications include electromechanical and power electronics, antennas, RF and microwave components, power and signal integrity of high-speed interconnects. In recent years, these applications became highly demanding both in terms of RAM and CPU. Thus, they necessitate massive computing, parallelization, and hardware acceleration using MPI, OpenMP, CUDA, and GPU libraries and toolkits.

Job Description

EMWorks is actively looking to hire a high-performance computing expert to join our R&D team to advance the art of computational electromagnetics, from DC to light. You will join a team of engineers and scientists tackling uniquely challenging computational electromagnetic problems that require massive parallelization under both Windows and Linux operating systems. Your knowledge in high-performance scientific computing, artificial intelligence, and hardware acceleration will empower you to play a leading role in the R&D team. You will develop algorithms and code them in C/C++.

QUALIFICATIONS

- Graduate degree, preferably a PhD, in computer science or engineering, applied Mathematics, or another scientific field that involves computational algorithms and massive computing.
- Strong experience in scientific code development using C++ in Windows and Linux environments.
- Experience in using MPI, OpenMP, CUDA, and GPU libraries for high performance computing.
- In-depth knowledge of numerical methods and linear algebra including sparse matrix solvers.
- Background in FEM is a significant asset.
- Prior experience with PETSc, PARDISO, or other toolkits is a big plus.
- Experience using HPC clusters is a significant asset.
- Experience with code maintenance in a team and code review processes is a significant asset.

To Apply

Please email your CV to ahmed@emworks.com.