

Computational Software Engineer

Location: Rochester NY, United States

Company Description

RAM Photonics has its headquarters in San Diego CA, with facilities in San Diego CA and Rochester NY. The company portfolio includes specialty optical and optoelectronic systems for defense, commercial, and industrial applications, including advanced signal processing, high-power laser, and instrumentation systems. RAM Photonics seeks capable, creative, and driven contributors skilled at communicating and performing within a technical team composed of leading photonics, electronics, and software engineers.

Job Description

The Computational Software Engineer will be responsible for developing numerical simulation code in a high-performance language such as Julia, C++, or other language for product-class implementation. The candidate is expected to determine which language will provide the highest speed benefit given the computational tasks involved in the numerical simulations. The candidate is expected to implement parallel and distributed computing and be able to explore the use of GPGPU computation. Interfacing with third party computational software may be required. Inclusion of additional numerical computations and other features will occur over the course of the development. The candidate will also be responsible for the interface from which a user can prescribe, initiate, and retrieve results from the relevant numerical computation securely over the Internet. Input and internal error handling will be required. The exact title and level assigned to the position will depend on the candidate's experience and capability.

Experience Requirements:

- B.S., M.S., or Ph.D. in Software Engineering, Computer Science, or related field.
- At least 4 years of experience in computational programming.
- Ability to work closely with functionally and self-trained programmers.
- A self-starter and team player with excellent communication skills.
- Commercial fluency in mid-level or comparable-speed numerical computing languages such as C++ and Julia.
- Experience with a variety of parallel, multithreaded, and distributed computing techniques and optimization.
- Ability to interpret MATLAB code.
- Understanding of complex notation, polar notation, and basic linear algebra.
- Capability of benchmarking computational speeds and down-selecting an optimized language.
- Skilled at debugging and annotating code.
- Familiarity with numerical/mathematical computing resources/libraries.
- Track record of coding and implementing computational software.
- Relevant experience in computational software development, including broad technical knowledge in high-speed programming languages, parallelization techniques, communications protocols, and error handling.
- Experience in code annotation, documentation, and version control.

Desired Skills:

- Experience interfacing with commercial thermal or multi-physics simulation software.
- Knowledge in solving differential equations.
- Experience with low-level programming languages.
- Experience operating on cloud computing platforms.

Qualified applicants should submit resumes with a cover letter using the link below :

<http://completepayroll.evolutionadvancedhr.com/JobApplication.aspx?jobpostingkey=373f50c3-52ae-4c3e-8045-0b93ee354c19>