

## **Computational Plasma/EM Scientist or Engineer**

Tech-X Corporation is seeking computational scientists or engineers with a background in a physical science or engineering field, with a preference for a background in plasma physics or electromagnetics of structures. Tech-X has opportunities for research and product development. The selected candidate(s) will be instrumental in Tech-X's path forward.

### **Key Responsibilities**

- Develop algorithms and methodologies applicable to high-performance computation for electromagnetics and plasmas, particle-in-cell, collisional processes, fluid dynamics methods, and/or Monte Carlo methods;
- Work with a team to implement new capabilities potentially including porting software to emerging computing devices (e.g., GPU, SIMD), making software available on the cloud;
- Define and develop research programs.

### **Required skills**

Numerical methods such as finite difference, finite element, particle-in-cell methods, Monte Carlo methods, embedded boundary methods;

One or more of the following research areas: Plasma Physics, Electromagnetics of Structures, Lasers, Photonics, Semiconductor Device Modeling, Radiation Modeling, Fluid Dynamics;

Ability to communicate science and engineering concepts to knowledgeable colleagues;

Ability to work within a small company and directly across functions within the company.

### **Desired skills**

Cross-platform development, specifically CMake;

Familiarity with one or more of distributed memory (MPI) computing; thread-based, vector-instruction based, GPU computing;

### **Education**

PhD in computational science and/or engineering

### **Experience**

We are interested in candidates at all levels, from new Ph.D. graduates to more senior candidates for defining and leading a research program.

### **Company description**

Located in Boulder, Colorado, Tech-X Corporation specializes in computational science and engineering using new software development paradigms. Our work is aimed at

understanding physics via modern computational methods, high-performance computing, advanced visualization, and distributed computing technologies.

## **COMPENSATION & BENEFITS**

Tech-X Corporation offers competitive compensation and a dynamic company environment. Benefits include comprehensive coverage for medical, dental, vision, life, disability, flexible spending accounts, 401K savings plan with company match, vacations and holidays, and a flexible work schedule.

## **TO APPLY**

Apply on line at <https://txcorp.com/computational-scientist-engineer/>.

Tech-X accepts applications only from individuals. No recruiters, agencies, or third parties, please.