Computational Mechanics Engineer

Third Wave Systems, a leading provider of CAE analysis software and services for machining manufacturing, is seeking enthusiastic additions to our computational mechanics software development team. This position holds the primary responsibility of developing and implementing numerical methods, finite element formulations, adaptive and initial mesh generation, three-dimensional geometry engines, mechanistic machining models, constitutive models for the simulation and optimization of metal, composite, and ceramic cutting processes. The Computational Mechanics Engineer (CME) will collaborate with Applications Development, Applications Engineering and Product Quality teams to translate customer requests and problems to internal requirements.

Ideal candidate must hold a master’s or Ph.D. degree in mechanical engineering or a related field, with experience in one or more programming languages (C, C++, C#, OpenMP, OpenCL, CUDA, and Fortran 95/90/77) and CAD/CAM systems. To best complement Third Wave Systems’ development capabilities, candidates should have expertise in one or more of the following areas: explicit, implicit, direct and iterative solution methodologies; thermo-mechanical coupled analysis; mechanistic machining modeling; large deformation analysis; adaptive and initial mesh generation; deformable contact; shared and distributed memory parallel computing; plasticity; fracture mechanics; and constitutive modeling for metals, composites, and ceramics. Knowledge of metal cutting processes is a plus, but not required. Strong communication and skills are required, along with the ability to build relationships and work collaboratively across the organization.

Third Wave Systems offers competitive pay and benefits within a technically challenging environment.

Send resumes and academic transcripts to

Email: hr@thirdwavesys.com – indicate “Computational Mechanics Engineer” in the subject line

Mail: Third Wave Systems, Inc
6475 City West Parkway
Minneapolis, MN 55344

No phone calls

About Third Wave Systems

Third Wave Systems provides physics-based CAE software and services used by aerospace, automotive, and cutting tool companies to optimize machining and product development processes. Using CAE resources, TWS software combines physics and material modeling to produce lighter, stronger, greener products at lower cost. This leads to better decisions, faster time to market, and higher profitability for users. Kennametal, 3M, Toyota, Bell Helicopter, Airbus, General Motors, and General Electric are among TWS’ national and international customer base.

Please visit our website at www.thirdwavesys.com.