



NTI is the world's premier developer and provider of commercial in-flight icing simulation software and associated design, testing and certification services to aerospace companies.

POSITION: CFD DEVELOPER

Duties and responsibilities:

1. Development of Finite Element-based multidisciplinary CFD codes for in-flight icing
2. Code optimization
3. Maintenance of existing codes and supporting documentation
4. Validation and testing of codes
5. Customer support
6. Abiding by the existing programming standards
7. Producing clear documentation/technical publications in English and French

Qualifications:

Applicants must have a Master degree (with 2-3 years of relevant experience) or Ph.D. degree in Mechanical or Aerospace Engineering from an accredited Canadian or American university.

The applicant must have advanced knowledge of:

1. Mathematics
2. Aerodynamics, compressible fluid dynamics and thermodynamics
3. Heat transfer, including phase change
4. Turbulence modeling
5. The Finite Element Method
6. Analytical and numerical methods applied to the solution of Partial Differential Equations and demonstrable code development skills
7. Parallel programming environments, such as MPI and OpenMP
8. In-dept knowledge of FORTRAN, C, UNIX/Linux and script languages
9. Advanced programming techniques

In addition, knowledge of these subjects is highly desirable:

1. CAD packages, such as Pro/Engineer or AutoCAD
2. Mesh generation experience with packages such as ICEMCFD, Gridgen
3. Mesh adaptation

Personal qualities:

Maturity, good work ethics and organization, quick learning abilities, initiative and ability to integrate and participate in a dynamic team, good verbal and written communication.