



## **COMBUSTION RESEARCH AND FLOW TECHNOLOGY, INC.**

### **HYPERSONICS RESEARCH SCIENTIST**

CRAFT Tech has an immediate opening for a Hypersonics Research Scientist to support the analysis of hypersonic aerodynamics, aeroheating and trajectory modeling, applied to high speed/reentry vehicles, involving the use of advanced CFD/DSMC software and tools. CRAFT Tech is seeking motivated and energetic individuals to join its highly talented team focused on developing solutions and products for customers in government, academia and industry for multi-disciplinary applications in Aerospace, Defense, Energy and National Security.

CRAFT Tech is located in Pipersville, PA with satellite offices in Huntsville/AL, Oxford/MS and Charlotte/NC. CRAFT Tech offers competitive salaries and a comprehensive benefits package, including health benefits, life insurance, 401(k) plan, vacation and tuition assistance for further education. Interested candidates should email their resume to: [jobs@craft-tech.com](mailto:jobs@craft-tech.com).

#### ***Job Description:***

- Collaborate with and support senior staff in supporting projects related to hypersonic flight vehicle flowfield/signature predictions and related research activities
- Collaborate with CRAFT Tech's partners in government, academia and industry
- Requires excellent analytical, technical and communication skills
- Report preparation, proposal development and participation in technical forums

#### ***Applicant Qualifications:***

- M.S. or Ph.D. in Aerospace or Mechanical Engineering or Physics or Mathematics with a specialization in hypersonic/reentry physics, such as ablation, thermal protection systems, nosetip shape change, shock layer/wake chemistry, aerothermochemistry, boundary layer transition, DSMC/rarefied gas dynamics modeling, etc.
- Experience in Computational Fluid Dynamics (CFD) and/or Direct Simulation Monte Carlo (DSMC) modeling including mesh generation, CFD/DSMC solvers and post-processing for high speed (hypersonic) systems is preferred
- Excellent communication, very strong writing and interpersonal skills
- Strong programming skills with Fortran, C/C++, Python or other scripting languages.
- Ability to work both independently on R&D developmental programs as well as in a team environment
- US citizenship required as well as ability to obtain Security Clearance

#### ***Additional Desired Skills:***

- Strong background in multi-disciplinary numerical techniques, linear algebra, applied probability, machine learning, and design optimization
- Knowledge of hardware-based computational acceleration (e.g., parallel and GPU computing)
- Experience in writing proposals

#### ***Job Location:***

- Position is available at CRAFT Tech's Pipersville, PA facility