

R&D Position in Combustion and Detonation Modeling

BlazeTech Corporation has full-time openings for PhD graduates in Mechanical, Chemical, Aeronautical Engineering or Physics with specialization in combustion and detonation modeling.

Job Description:

Development of specialized deflagration, detonation and shock dynamic models for explosives, propellants and fuels with applications in munitions, missiles, aircraft, ships and vehicles. Formulation of key small- and large-scale tests to be performed in house or at national test facilities to obtain data for model validation.

Requirements:

- Relevant coursework or experience in Combustion, Kinetics, Reacting Gas Dynamics and Applied Mechanics
- Strong emphasis in analytical methods (CFD and FEA background is desirable such as FLUENT and CTH)
- Willingness to work on a wide spectrum of commercial and military projects both independently and in a team
- Strong written and verbal skills
- US Citizenship (preferred) or Permanent Residency.

General:

Founded in 1987, BlazeTech is a leader in providing R&D, product development and computational services in environmental safety and energy for civilian and military applications. Over the years, we have developed innovative and cost-effective solutions for many problems of national importance. Recently, we focus on major hazards and homeland defense threats that pose risks to people, property and the environment. Sample projects include:

- Modeling a rotation detonation engine
- Fire/explosion in aircraft fuel tanks under accidental and combat conditions
- Failure of metallic and composite structures under dynamic loadings
- Scaling of explosives and propellants cookoff
- Development of fire suppression systems including a novel foam system
- Protection of Lithium batteries against runaway reactions
- Combustion and neutralization of chemical and biological agents
- Measurement of agglomeration of nanoparticle
- Atmospheric dispersion of reactive chemicals
- CFD in various flows, all the way to hypersonics
- Novel low NOx burner and fluidized bed combustors

BlazeTech is a half-way house between academia and industry that bridges the gap between theory and practice. Our projects include multi-disciplinary, cutting-edge work in technical areas with high potential for market impact. We perform work similar to the R&D department of a major company but our flexibility allows us to be more responsive to current issues. For the self-motivated, the opportunities for innovation and achievement abound – all the way from project conceptualization to commercialization. Commercialization is accomplished through licenses, strategic partnerships and launching of operating companies. We provide competitive salaries and benefits including medical and dental insurance, a profit-sharing 401k and a potential for equity participation. Please send resume and transcripts to Human Resources at the email or address below.