Contacts:
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Finite Element Analysis Engineer, Junior to Mid-Level Experience

About this Role:
Skyward, Ltd. is a growing Dayton, OH based aerospace company and is currently seeking a candidate for our Modeling & Simulation group performing finite element analyses (FEA) for the U.S. Armed Services. This work will involve dynamic FEA and the creation of validated models to represent physical interactions, including shocks, impacts, and detonations, particularly in the area of combat air and ground vehicle survivability. This position will also involve the integration of machine learning with test and analysis results. Sample projects include the utilization of machine learning to speed the analysis of the residual strength of damaged components, aeroelastic effects on damaged aircraft wings, and analyzing and modeling test data. This is an in-office opportunity for a mid-level engineer with three to five years of experience and an accredited bachelor's degree in aerospace, aeronautical, or mechanical engineering.

Responsibilities:
• Develop finite element models (FEM) based upon physics-based principals.
• Perform FEM meshing functions to prepare for analysis.
• Debug and run FEA/CFD models to successfully accomplish solutions.
• Develop software and scripts to speed functions and perform batch processing.
• Develop new workflows and software to advance the state of the art in survivability, vulnerability, and lethality modeling and simulation.
• Interact with customers and partners to develop an understanding of program issues and interact with the modeling and simulation team to devise solutions.
• Validate simulations using test data.
• Perform data analysis and organize data to derive conclusions.
• Utilize machine learning to improve processes and create improved tools
• Write reports, develop presentations, and assist in proposal writing.
• Support the development of 3D models.
• Support Test & Evaluation team with onsite data collection, as necessary.
• Travel as required to visit customers and test sites.

Skills:
Required
• Strong organizational skills and attention to detail
• Good communication skills to foster cooperative working relationships

- Desire and willingness to learn new skills, tools, and processes
- Self-starting and proactive
- Experience performing finite element analyses

Optional but desirable
- Previous experience with Explicit FEA, SPH, CFD, or Eulerian tools
- Previous experience with tools like LS-DYNA, CTH, ALE3D, Impetus AFEA, Altair Hyperworks, Hypermesh, or Solidworks
- Experience with Linux
- Experience writing simple computer programs or scripts
- Master's Degree is a plus

Minimum Qualifications:
Bachelor's degree required in aerospace, aeronautical, or mechanical engineering. Three to five years engineering experience.
US citizenship required with an ability to obtain Secret Clearance.

About Skyward, Ltd.
Skyward, Ltd. is a rapidly growing small business, located in Dayton Ohio, whose mission is to enhance the survivability and mission effectiveness of our customers' people and resources through professional and engineering services and research and development. Expertise areas include test & evaluation, modeling & simulation, machine learning, software development, and 3D scanning and reverse engineering, with focused solutions in the areas of fire protection, structural analysis, unmanned aerial systems and geospatial products, and additive manufacturing.

Benefits:
Skyward offers competitive salaries and benefits, including:
- Retirement plan with annual employer contributions
- Comprehensive health insurance package, including dental and vision
- Employer-provided Health Savings Account contributions
- Life insurance
- Paid Federal holidays
- Remote working opportunities
- A generous paid time off plan

Skyward Ltd. is an Equal Opportunity Employer. All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, marital status, veteran's status, disability, sexual orientation, gender identity, or any other protected class set forth by federal or state law.

Skyward is a Drug-Free Workplace

All benefits are subject to plan eligibility rules, and legal requirements; from time-to-time benefits may be updated or modified.

This job description is designed to provide general guidance in job tasks and is not meant to be all-inclusive of the responsibilities, duties, and skills required of this position. As business demands and needs change, the essential functions of this position may be updated to reflect the needs of Skyward, Ltd.