

Dear Hiring Staff,

I am writing this cover letter in reference to the job position posted on your website. My name is Syed M. M. Jafri, and I am a practicing Mechanical Engineer (PhD, MSc; Texas A&M University, College Station, TX). I am a registered Professional Engineer (P. Eng) in the State of Texas.

The job advertised seeks technical skills in the areas of structural design, finite element analysis, vibrations and dynamics/fatigue analyses, composite materials modeling with focus on aircraft design and development. My area of specialty and experience is in analytical and CAD based design, modeling, structural stress and fatigue analysis of engineering machines and structures, using CAD based finite element software tools (FEA). I also have background of composite materials modeling using Abaqus/CAE FEA software. I have over 10 years of experience in the use of advanced nonlinear 3D finite element analysis methods using modern CAD and FEA tools, which include Abaqus/CAE, ANSYS, Creo/ProEngineer and SolidWorks. I have used my FEA expertise to solve highly complex and nonlinear structural static and dynamic design problems, ranging from refinery pipe-flange components with ceramic gaskets to large steel structures for transportation of hydrocarbons. I have performed dynamic impact FEA studies using Abaqus Explicit method for accidental dropped object studies for several structures. I am also well versed in Python scripting using Abaqus. I have my academic and research background in Rotordynamics and vibrations, where I performed theoretical and experimental research on rotating machines. With this background, I feel confident that my abilities match the job background and that I will be able to contribute significantly towards your company in the years to come.

I am currently working as an engineering consultant and trainer for FEA software Abaqus. I am also working as adjunct faculty at University of Houston (Main Campus) and UT Tyler (HEC), teaching Mechanical Engineering undergraduates.

I am seeking a full time senior level engineering position, where I can utilize my experience and skills in the areas of FEA, static and dynamic analyses, and stress/fatigue design. With my background, experience and knowledge, I am positive I can provide valuable engineering expertise in the above-mentioned areas at your organization.

If you have any questions, please do not hesitate to contact me.

Best regards,

Syed M. M. Jafri  
(832) 696-2876  
[mjafri76@yahoo.com](mailto:mjafri76@yahoo.com)