

Job Title: Mechanical Engineer (Intern)

Job Level: Part-time

Job Summary:

A mechanical engineer (an intern) will participate in the technical design, fabrication, and testing of components for an energy harvester (i.e. a heat-to-electricity thermoelectric generator) and other energy-related technologies, which are positioned for lasting impact in clean-tech for a variety of applications including vehicles. This position requires technical and interpersonal maturity to work well within a multi-disciplinary environment as well as a pragmatic drive and hands-on aptitude to deliver results. This job may be full time or part time and is flexible in terms of when (e.g. days, nights, weekends) and how many hours per week. Expertise in SolidWorks is required for creating parts, assemblies, and drawings with manufacturing tolerances. Expertise in SolidWorks CAM for creating CNC toolpaths for Incremental Sheet Forming (ISF) is strongly preferred.

Major Job Duties and Responsibilities:

- Design, analyze, fabricate, and test prototypes involving finned heat exchangers and thermal and fluidic performance.
- SolidWorks CAD is required for creating parts, assemblies, and drawings with tolerances.
- SolidWorks CAM is required for creating CNC toolpaths for Incremental Sheet Forming (ISF).
- Model mechanical structures involving heat transfer (conduction, convection) from heat exchangers and mechanical and thermal stresses from thermal expansion and effects due to high temperature, materials, and their interfaces.
- Design, analyze, build, and instrument test stands to test prototypes and products.
- Define specifications for parts and system. Lead vendors and suppliers to deliver to spec.
- Participate within multi-disciplinary team and interface with external partners and vendors.
- Contribute to developing company's core technologies and intellectual property.
- Document designs and results in the form of detailed drawings, reports, and presentations.
- Manage technical tasks and projects in order to meet overall program goals.

Required Skills and Experience:

- Solid technical capabilities involving detailed mechanical designs for parts, assemblies, drawings, and dimensions using SolidWorks is required.
- Analysis, modeling, and simulation of structural mechanics using Finite Element Analysis (FEA) in SolidWorks is a plus.
- Experience with heat exchange and materials at high temperatures (i.e. 400 – 900 degC) is preferred.
- Product development experience involving rigorous technical activity is preferred. Design for Manufacturability and Assembly (DFMA) is preferred.
- Experience with heat exchangers, thermoelectrics, and vacuum-sealed devices is preferred
- Technical project management is preferred
- Good communication skills, verbal and written
- Good interpersonal skills with the ability to work well within a team environment
- Agility, adaptability, and resourcefulness within a dynamic work environment
- Strong desire to work in a start-up company is a must. Experience in a start-up is preferred.

(over)

Required Level of Education and Experience:

Pursuing or in between the following:

B.S. in mechanical, aerospace, or material engineering -- plus at least 1 year of industry experience

or

M.S. in mechanical, aerospace, or material engineering -- industry experience is preferred

About VECARIUS:

VECARIUS, Inc. is an emerging leader in heat recovery systems, significantly improving the energy efficiency of engines. Conceived by MIT engineers, our proprietary technology is positioned to make a lasting impact in clean-tech. We are looking for top talent to join our team to share this vision of success.

Contact:

Please submit resume and cover letter.

Steve Casey

President & CEO

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