

# 1 Senior Thermal Design Engineer

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## 1.1 Introduction

ZeoDAC is in the business of capturing carbon dioxide to create a better tomorrow. We are striving to become a major part of the solution towards Net Zero carbon emissions. As a start-up founded in 2023, we are working to rapidly develop and deploy our Direct Air Capture (DAC) process that can remove carbon dioxide (CO<sub>2</sub>) and water (H<sub>2</sub>O) directly from the air. These products can be supplied to a variety of commercial and industrial customers. We seek to expand our technical team that is developing our core technology.

As a Senior Thermal Design Engineer, you will be instrumental in the development and evaluation of novel DAC systems onsite in our facility in Atlanta, Georgia. You will work alongside our experienced team of engineers and use your skillset to propel the development and deployment of our DAC systems.

If you are excited about making an impact on the environment at a groundbreaking DAC startup, we invite you to apply!

This is a full-time, on-site opportunity at our research and development laboratory in Atlanta, Georgia.

Pay Range: \$120-150k per year

## 1.2 Skills and Experience

- Candidates with a Bachelor's degree or Master's degree in Chemical Engineering, Mechanical Engineering, or Aerospace Engineering or related fields with 5-10+ years of industry experience. Candidates with PhD degrees in Aerospace Engineering, Mechanical Engineering, Chemical Engineering, or related fields with 3-5+ years of industry experience are also encouraged to apply.
- Strong proficiency in fluid dynamics and heat transfer both in modeling and design of equipment – design, analysis, improvement of gas-solid heat transfer systems
- Adept at designing and implementing process equipment with a particular focus in heat pumps, adsorption units, and air handling (i.e., blowers, compressors, vacuums, piping, etc.).
- Experience scaling systems, components, or technology from lab to demonstration to commercial levels.
- This person must have experience in process design and operation and scale-up
- This person must have worked in a commercial process plant environment and worked with a start-up team in installing new processes

- This person must have familiarity with and used computational models related to chemical engineering processes
- Skilled at optimizing and integrating multiple industrial equipment to improve an overall process.

### **1.3 Job Responsibilities and Requirements**

At a start-up, you will be required to wear many hats to support the development of this critical technology. However, below are more specific responsibilities for this role:

- Support technology development of novel DAC processes. This involves knowledge of heat/mass transfer, fluid dynamics, and mechanical stresses
- Analyze and optimize fluid flow and temperature profiles through various types of equipment such as heat exchangers, adsorption beds, blowers, etc.
- Design and model mechanical and thermal aspects of ZeoDAC's demonstration-scale and commercial-scale systems – develop a detailed understanding of heating and cooling units
- Develop demonstration-scale and commercial-scale equipment level cost estimates to support techno-economic analyses.
- Assist in various laboratory activities when deemed necessary
- Maintain a safe working environment and laboratory environment

Below are additional requirements for the job:

- This position requires you to be on-site at our Atlanta, GA facility for a minimum of 4-5 days per week.
- This position requires physical activities including climbing stairs or ladders, stooping, crouching to work on equipment, operating machinery and lifting and carrying loads of 40 pounds or more. May require standing or sitting for long periods of time to perform specific operations.

### **1.4 Job Benefits**

- Medical Benefits: Company offers group health benefits, which employees will have the option to enroll.
- PTO: Employee will accrue 3 weeks of PTO, which can be used for vacation or sick time, over each year of employment.

## **1.5 Company**

ZeodAC is an equal opportunity employer. All applicants will be considered for employment without attention to race, color, religion, sex, sexual orientation, gender identity, national origin, veteran or disability status.

**To apply, please send a copy of your resume to [info@zeodac.com](mailto:info@zeodac.com)**