



Czero, Inc

Job Opening – Mechanical Engineer

Posting#: 2024 - 005

Date of posting: August 23, 2024

Location: Fort Collins, Colorado 80524 - minimum of 3 days/week on-site

Residency Requirement: U.S. Citizen or Permanent Resident (Green Card)

Time commitment: Full time

Reporting structure: Reports directly to the VP of Engineering

Salary Range: Depends on experience

JOB DESCRIPTION

Czero is seeking **two (2)** experienced Mechanical Design Engineers:

- One with a minimum of 5 years' experience in mechanical design and design-related analysis. Salary range \$88,000 - \$110,000.
- One with a minimum of 10 years' experience in mechanical design and design-related analysis. Salary range \$110,000 - \$120,000.

You will have both CAD and analytical skills to support our research and development technology projects. In this role, you will work in a collaborative team environment to develop designs for cutting-edge technologies in a wide range of industries, including clean energy, advanced automotive, transportation, and aerospace.

Czero specializes in early-stage research and development of innovative technologies in the energy sector, in particular those that reduce energy consumption. At any given time, our projects may include wave energy, compressed air storage, hydrogen infrastructure, automotive powertrains and valvetrains, fuel cells, and hydraulic power systems, to name a few. If you join us, you will be immediately contributing to a project team of other motivated and passionate problem solvers as we strive to deliver the best designs for our customers and positively impact the environment.

We are committed to a diverse and inclusive work environment - women and minorities are strongly encouraged to apply to work with us.

QUALIFICATIONS

Education

Minimum of Bachelor's degree in Mechanical Engineering (advanced degree preferred)

Experience required

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Both positions must have experience in mechanical design and design-related analysis and have significant proficiency in the use of CAD tools (solid modelling) which will be used during the design process.

Essential capabilities:

- Proven ability to develop new concepts and designs to solve R&D challenges
- Strong machine design skills and experience
- Demonstrated capability to create complex designs using SolidWorks (preferred), Autodesk Inventor, and/or PTC Creo
- Perform analysis as part of the design process using spreadsheets, Mathcad, or similar programs (i.e., fatigue, buckling, peak stress, system hydraulic flow/pressure calculation, actuator/pump/motor sizing, spring/gear/spline design, etc.)
- Apply dimensioning and tolerancing to create manufacturing and assembly drawings as well as perform tolerance stack-up analysis (preferably using ASME Y14.5)
- Work with the team to evaluate concepts and conduct/participate in design reviews
- Work with the team on FMEA/HAZOP's and related documentation
- Write specifications for purchased components
- Work with vendors and experts on component selection
- Meet with clients, vendors, and partners
- Document design activities

Additional consideration given to those with experience in these areas:

- Analysis capabilities: FEA, CFD, dynamic modeling, MATLAB, Simulink
- Experience working in a research and development environment
- Experience with material, surface treatment, and surface coating selection
- Proficiency in ASME Y14.5
- Automotive powertrain engineering/design
- Engineering for cleantech and oil & gas applications
- Hydraulic systems, including industrial hydraulics and high-bandwidth systems such as fuel injectors, high-speed valves, etc.
- Compressors/pumps
- Document control and Solidworks PDM
- Process piping (ASME 31.1 & 31.3), welding standards, etc.

The right fit for our team

We are looking for an individual who is authentic, smart, creative, hardworking, able to handle multiple activities simultaneously and is great at forging trust and building strong relationships both internally and externally. Everyone at Czero enjoys the challenge of tackling hard problems and is willing to put in the time and effort to solve them. Additionally, we have a true team environment, so it's crucial that you can collaborate effectively with diverse team members.

If you join our team, you will find Czero an interesting, challenging, and rewarding place to work. Your contributions will make a significant impact on high-profile projects that are positive for our clients, the environment, and the economy.

Benefits

Czero offers a flexible and collaborative workplace with competitive salary and a generous benefits package, including:

- Employer sponsored health insurance
- Employer paid Long Term Disability
- 401k retirement plan with employer match
- Flexible schedule
- Paid time off, accumulating from your first day
- Annual discretionary bonus and salary adjustments

ABOUT CZERO

Czero is a dynamic, rapidly evolving engineering services/contract research and development firm committed to delivering high-quality solutions to our clients. Czero specializes in early-stage R&D in the areas of cleantech, energy, power generation, and transportation. We are 17 years old and have delivered on over 400 projects to date. Our clients include the Department of Energy, the Department of Defense, National Labs, Universities, and companies of all sizes including start-ups. Our team takes on wide-ranging engineering challenges, developing new technologies and delivering high quality proof-of-concept prototype systems. We are passionate about the environment, and our work centers on scalable, cost-effective solutions to increase energy efficiency, improve energy storage and delivery, and decrease harmful emissions. Czero has a strong network of partner companies, suppliers, and university collaboration partners, including Colorado State University often working with university researchers on cutting edge technology development.

We celebrate employment diversity, equity, and inclusion. We encourage applications from all qualified individuals and do not discriminate based on disability, race, ethnicity, religion, gender, sexual orientation, age, veteran status, or any other basis protected under federal, state, provincial or local laws. Czero is an equal opportunity employer.

RECRUITERS

Please do not contact us regarding this or other positions at Czero; we already have an established relationship with a great recruiting team. Thanks!