Mechanical Intern

Czero is looking for a few exceptional students to hire into our intern program to support 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’s internship program is a multi-semester program where we provide extensive training and mentorship to the students. Through this challenging program you will hone your engineering skillset while working as a part of our interdisciplinary team. While we cannot guarantee job offers at the end of the internship, finding promising new engineers to hire is a primary objective.

Czero specializes in early-stage research and development of innovative technologies in the energy sector, in particular those that reduce energy consumption and/or harmful emissions. 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.

Representative tasks

* Develop and document new concepts and designs to solve R&D challenges.
* Create solid models using SolidWorks, Autodesk Inventor, or CREO. Training time is allotted for students who are new to the various software tools.
* Work within the collaborative Czero engineering team to evaluate concepts and conduct design reviews.
* Interface with both the controls and modelling and simulation teams with opportunities for cross-training in both.
* Perform analysis as part of the design process using spreadsheets, Mathcad, MATLAB or similar programs (e.g. fatigue, buckling, peak stress, system hydraulic flow/pressure calculation, actuator/pump/motor sizing, spring/gear/spline design, etc.).
* Perform dynamic simulations using MATLAB/Simulink and other programs.
* Work with the team on FMEA’s and product development documentation.
* Use GD&T to make production-ready prints of designs and perform tolerance stack-ups.
* Make assembly prints and complete Bill of Materials (BOM).
* Write specifications for purchased components.
* Work with vendors and experts on component selection.
* Machine and fabricate parts and assemblies (mill/lathe/welding).
* Assemble and test hardware.
* Meet with clients, vendors, and partners.

Education

* Taking Junior or Senior courses in Electrical or Mechanical Engineering during the upcoming 2024 Fall Semester.

Essential for this position

* Strong verbal and written communication and interpersonal skills
* A passionate interest, shared with everyone on the Czero team, in developing cutting-edge innovations that make a positive global impact
* Commitment to Czero’s goals and a desire for continuous improvement

Residency requirements

* Must be U.S. citizen or Permanent Resident (Green Card)

Program Details

* Students work full time (40 hours per week) during summers, and 15-20 hours per week during school.
* We all still remember what it is like to be a student, so we build in flexibility to the schedule to allow for crunch time.

Contact:

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