

Position: Electrical Engineering Intern

Employment Type: Internship

Student Majors of Interest: Electrical, Computer, or Aerospace Engineering, Embedded Systems, Computer Science (with Hardware experience)

Personality Trait Key Words: Adaptability, Low Ego, Overcoming Obstacles, Enthusiasm for the Company, Highly Motivated, Accountability

Internship Description:

Looking for a talented and passionate intern who would like to be part of startup and spend their summer working on hands-on projects for ZapBatt. ZapBatt is currently working on the next generation of battery systems and implementing their technology into several applications. Our intern for this position will assist in prototyping, fabrication, testing, and analysis of ZapBatt products for certain customer projects. The candidate should have basic electrical engineering skills both theoretical and hands-on that can assist team members with project specific tasks. We are also looking for problem solvers who take initiative learning new skills, spend time with team members to learn new knowledge and techniques, and ask constrictive questions to help grow with the company. Below is a basic outline of required qualifications along with an overview of current projects the intern would be working on for the summer. This is a 2-3 month, full time role, and required to be held in-person at the company headquarters in Carlsbad, CA.

Required Qualifications:

- Results-oriented, self-disciplined, fast-paced, motivated individual that requires minimal supervision and able to multitask several projects at one time
- Basic circuit design, basic electrical principles in a hands-on environment, real world hardware experience
- Strong desire to learn and grow with a young company
- Must possess a basic understanding of electronics and communication protocols, with a curiosity for how things work
- Ability to deal with ambiguity – ready and able to efficiently change plans quickly to meet the changing needs of the business and projects
- Proficient computer skills: Microsoft Office Suite - Word, Excel, Outlook, Teams
- Strong communication (oral and written), including ability to communicate in small and large settings and at all levels in the organization with a demonstrated ability to process complex information and summarize it concisely

Preferred Experiences:

- Familiarity with DC-DC power supplies, consumer electronics and/or commercial electrical systems/sub-systems, battery systems
- Familiarity with battery power devices, battery management systems, digital power supply design, robotics, and/or motor controllers
- Familiarity with benchtop oscilloscopes, multimeters, power supplies, and/or logic analyzers
- Experience in a lab environment
- Experience with soldering
- Relevant programming language experience in C, C++, and/or C# for embedded devices such as ARM processors, PIC, AVR, etc,
- Experience with development platforms such as Arduino.
- Experience using Altium, Eagle, KiCAD, or similar computer programs

Internship Project Overview

- Intern will help work on prototype e-mobility systems, battery powered regenerative personal fitness equipment, and other company R&D projects.
- Intern will help with battery installation, component testing, circuit analysis, data logging, and prototype testing/validation.
- Intern will work in a team environment to run analysis of ZapBatt products.
- Intern will help with lab bench testing, analysis of certain circuits currently on our boards and potential simulation of future circuit designs.
- Intern will help parse through component data sheets to pull out important information useful to our design engineer and to the programming efforts.
- Intern will help find alternative components when swaps are needed due to global semi-conductor part shortages.
- If intern candidate has MATLAB Simulink experience, they can help setup and run virtual circuit simulations.
- Intern will perform research and analysis of ZapBatt technology applicability to certain markets. This will include analysis, research, presenting and building relevant findings into an organized and presentable format.

DISCLAIMER: ZapBatt is an equal opportunity employer and prohibits discrimination and harassment of any kind without regard to race, color, religion, age, sex, national origin, disability status, genetics, protected veteran status, sexual orientation, gender identity or expression or any other characteristic protected by federal, state or local laws or our own sensibilities.