

## **General Intern Duties and Responsibilities**

As a member of a small team of engineers and researchers, you will be working on core technology in an exciting and fast-paced environment. You will bring your expertise to the table to help build and launch the startup's first commercial product. You will be involved in the day-to-day decision making and you can expect to gain valuable insight into building a new, innovative product. On the hardware side, you will work with the latest telecom technologies such as 4G Cat-M1, BLE, embedded AI algorithms in C++ on the edge and low power electronics. On the software side you will be using cloud computing to manage data broadcasted in real time, apply various types of advanced mathematical algorithms (both traditional and ML based) and display that data to the user. As part of your job, you will have the option to travel across the country to participate in the field testing phases of the project as well. You can expect to learn the ins-and-outs of a funded startup and will gain valuable insight in a highly entrepreneurial environment.

We are seeking motivated, energetic and self-driven interns to help us design and build IoT devices from scratch and to test them both in the lab and in the field. The offer is ideally for a full-time paid internship with a 6 month duration. The start date is flexible but is expected to be around **February/Spring 2021**.

# IoT Hardware Engineer

## Job Summary

As a IoT hardware engineering intern, you will help develop a device that collects and transmits various sensor data on oil/gas field assets. There are high demands for data accuracy as this data is what feeds into our AI system. You will also update existing systems on the field to manipulate actuators remotely as well as continually miniaturize our systems both physically and in terms of power requirements. Various communication protocols such as Cat-M1, GPS and BLE are used and we are actively implementing further on-the-edge processing.

## Requirements and Qualifications

- Programming experience in C/C++
- Familiarity with development on microcontrollers
- Familiarity with electronics, analog and/or digital
- Self-directed and able to work with minimal supervision

## Bonus Qualifications

- Familiarity with signal compression techniques is greatly appreciated
- Familiarity with CAD and 3D printing
- Familiarity with circuit design & EDA software
- Familiarity with Amazon Web Services