



## **Algorithm Development Engineer**

The Algorithm Development Engineer will be responsible for developing innovative and creative algorithms to extract meaningful and actionable insights from low cost wearable technologies/sensors in the consumer health and medical device space. The Algorithm Development Engineer will be responsible for leading algorithm development throughout the product lifecycle - from defining requirements through design, development, testing, and deployment. The successful candidate will have deep data analysis experience in time series/frequency analysis, sensor fusion, feature extraction, data reduction, classification techniques, optimization techniques, and machine learning. This role requires a good deal of creativity and initiative that is applied to a diverse type of sensing technologies meeting the needs of both business and consumer stakeholders.

### **Essential Functions:**

- Designing, implementing, and testing novel algorithms to extract meaningful information from low-cost wearable technologies to meet customer/product requirements
- Using Software Development Life Cycle to maintain and document algorithm evolution from ideation to deployment
- Assist in porting algorithms from higher level languages such as Matlab and Python to low cost microcontrollers
- Contribute to applied research enabling response to customer and market needs
- Defining and managing unit, regression, and integration tests
- Integrating automated testing of embedded algorithms
- Lead sensor calibration efforts including defining process and analysis
- Generate reports and presentations

### **Qualifications:**

- BS in software engineering, EE, Computer Science, Math, Physics, or similar field
- 3+ years of demonstrable experience building and integrating algorithms used in product
- Demonstrable experience in building algorithms using Matlab, R, and/or python
- Machine Learning experience highly desirable
- Demonstrable time series and frequency analyses
- Demonstrable analog and digital signal processing capabilities
- Demonstrable experience with classification, data reduction, sensor fusion, feature extraction techniques
- Demonstrable experience in data collection for both analog and digital sensors with clear understanding of measurement theory and statistical analysis techniques

- Systems and control theory experience is desirable
- Familiarity with relational database design and SQL
- Familiarity with C/C++ highly desirable