Company Description:
BioTraceIT™ values the capacity to improve medical care and interventions by quantifying pain, ultimately impacting quality of life and wellness. BioTraceIT™ focuses on novel technologies at the cutting edge of wearable health care. We deem new solutions as paramount to new paradigms. By measuring pain, we qualify wellness.

Role Description:
BioTraceIT™ is seeking an entry level engineering support employee. This individual will work with our engineering team to test, calibrate, and develop existing and new hardware and software. Dependent on the experience and skills responsibilities will include: bench top electrical circuit design, software coding and troubleshooting, experimental design and implementation, data analysis, study reports, quality systems and documentation, and customer and technical support.

Technical Competencies:
BioTraceIT™ focuses on development of a novel, cutting-edge patented technology for pain measurement. Main roles and responsibilities in the company include, but are not limited to:

- Design and develop algorithms and system architecture for physiological signal measurement and processing.
- Perform electronic hardware design, prototyping, testing and component evaluation.
- Development of data analytics and peak detection algorithms.
- Quality assurance testing of proprietary software using Agile development.
- Computer configuration and proprietary software installation procedures and verification.
- Perform exploratory data analysis and visualizations of multivariate clinical data sets and present results in the form of posters and technical papers at technical and/or clinical conferences.
- Develop Quality Management and Risk Assessment procedures including standard operating procedures, test protocols and corrective and preventative action processes.
- Develop technical documentation for training purposes of customers.
- Clinical site management and technical support.
- Establish and optimize test methods and protocols for studies during the pre-verification and verification/validation phases for medical device technologies.
- Work closely with other medical professionals, such as doctors, clinicians and nurses to understand
- customer needs.
- Knowledge will be strengthened by assisting during each phase of software feature
descriptions, electronic board design, manufacturing, and deployment. Technical
skills such as biomedical engineering, electronic circuit design, and software
development and testing will be further developed as well as FDA Design Control for
Medical Devices and QSR Compliance Basics complying with FDA’s Medical Device
21CFR 820 Quality System Regulation.

Desirable Competencies:

- Knowledge of modern statistical and machine learning techniques, including deep
  learning.
- Advanced knowledge of the application of machine learning to natural language
  processing and life sciences.
- Knowledge of pattern recognition and feature extraction algorithms.
- Experience in architecting back end to incorporate blockchain, informatics and data
  analytics for diagnostics, therapeutics, medical history (EMR integration), activity
  tracking, speech recognition annotations, and others.
- Defining and implementing an integrated data repository strategy for medical device
data, including clustering, concurrent versioning, speech annotation, EMRs,
therapeutics, and others,
- Ability to iteratively improve system performance through systematic empirical
  evaluation.
- Knowledge of techniques for running advanced algorithms in a “big data” and high
  performance computing environment, including knowledge of the use of GPUs.
- A background in working with ECG-like signals.
- Knowledge of EHR, UMLS classification and coding standards and cTakes a plus.
- Experience with Cloud service development and support including Amazon Web
  Services (AWS), EC2 + VPC (including Launch Configurations and Auto Scaling
  Groups), S3 + CloudFront, RDS, Route53, IAM, CloudWatch, WPEngine
- Experience with HIPPA, IHE / HL7 Experience in US, Canada, and European Clinical
guidelines for treatment areas understanding the healthcare system, payers,
providers, ACOs, and PBMs
- Experience in design controls and FDA/CAN/CSA / ISO 13485 / IEC 62304
  compliant software development
- Proficiency in the following would be helpful: NLTK, OpenNLP, clearNLP, Hadoop,
  MapReduce, IDR's and others
- Proven evidence of released applications achieving measurable behavior change in
  the health or fitness domains
Requirements:
To succeed in this role, you should have the following experience:

▪ Demonstrating excellent partnership and collaboration with other functions within the company to support common initiatives on medical devices.

▪ Experience or a degree in computer science, electrical circuit design / testing, and software development

▪ Experience aggregating data from different information systems such as EMR, census data, etc.

▪ Experience in one or more of the following: Linux/Unix, programming and scripting languages such as C/C++, Java, Perl, Python, Shell, MatLab, XML, Visual Basic, HTML, PROLOG, LISP, VoiceXML, Unix shell, and SQL as well as some machine learning frameworks.

▪ Experience with full stack Java web development, including the following technologies: Java, Spring, Groovy, and Gradle

Notes:
▪ In order to ensure a prompt and efficient processing of applications, candidates are encouraged to provide, along with their résumé, a detailed covering letter explaining how they meet each of the requirements of this position (education, experience, language requirements) by providing concrete examples. In addition, the candidate is encouraged to describe in detail when, where and how he/she gained the experience.

▪ BioTraceIT offers a competitive salary and benefits package.

▪ The incumbent must adhere to safe workplace practices at all times.

▪ We thank all those who apply and will make an effort to contact each candidate, however while we appreciate your interest we may be able to only contact those selected for further consideration.

To apply:
Please send your cover letter and resume to Claire Zopf at czopf@biotraceit.com with “Engineering” as subject line.

To learn more about BioTraceIT, please visit https://biotraceit.com