



Engineer 1: Assembly, Test and Technical Support

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 assemble, test, calibrate, and develop existing and new hardware, firmware and software for the company's proprietary product. Dependent on the experience and skills responsibilities will include: bench top electrical circuit design, software coding, troubleshooting and testing, firmware development of embedded systems, 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.
- Ability to solder and develop electronic prototypes for testing.
- 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.
- 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.
- Perform clinical site management and technical support.
- 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 programming languages including Java, Python, C, HTML, CSS, JavaScript, SQL and PHP.
- Advanced knowledge of Linux, UNIX, iOS and windows operating systems
- A background in working with ECG-like signals.
- Experience in design controls and FDA/CAN/CSA / ISO 13485 / IEC 62304 compliant software development.
- Experience with Cloud service development and support including Amazon Web Services (AWS).
- Knowledge of pattern recognition and feature extraction algorithms.
- Knowledge of modern statistical and machine learning techniques, including deep learning.
- Knowledge in the following would be helpful: NLTK, OpenNLP, clearNLP, Hadoop, MapReduce, IDRs and others.
- Knowledge of EHR, UMLS classification and coding standards and cTakes a plus.
- 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 a plus
- 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 in the use of electronics equipment including signal generators, power supplies, and oscilloscopes with equipment programming experience desirable.
- Experience in PC board assembly techniques, component isolation and signal to noise reduction.
- Experience in low output power circuits and power management optimization.

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 and to info@biotraceit.com with “Engineering” as subject line.

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