



Senior Python Developer

Company Description:

BioTraceIT™ focuses on novel technologies at the cutting edge of wearable health care. We deem new solutions as paramount to new paradigms. BioTraceIT has developed the PainTrace® Monitoring System for the quantitative measurement of both acute and chronic pain. The PainTrace® monitors the intensity of pain, assisting in the determination of the anatomical location of pain, and identifying the duration of pain which can be used to determine the time to take effect and efficacy of medications, The PainTrace® therefore assists in the assessment of pain and the compliance and effectiveness of treatments. The PainTrace, as an outcome measure for clinical and pharmaceutical research, assists in determining the effectiveness of pain treatments. The strategic pathway for the PainTrace® is to assist human healthcare by providing a quantitative measurement of pain.

BioTraceIT™ values the capacity to improve medical care and interventions through products like the PainTrace® to ultimately impact quality of life and wellness.

Role Description:

BioTraceIT™ is seeking a Senior Python Developer to help in the development of our medical device application and data analytics. The role will require management of medical records and other sensitive information. The ideal candidate will have expertise in software development including: coding, analytics, EMR, NLP, and medical acumen and an understanding of the complex healthcare systems and treatment areas (common practice and guidelines) as well as a focus on cloud-based infrastructure and big data analytics. GDPR implementation experience within Healthcare IoT and medical device data for integration with electronic medical records and individual patient data sources is a plus.

Technical Competencies:

- Design and develop algorithms and system architecture for physiological signal measurement and processing.
- Perform exploratory data analysis and visualizations of multivariate clinical data sets.
- 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.
- In-depth 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 is highly desirable.
- Knowledge of EHR, UMLS classification and coding standards and cTakes a plus.
- Demonstrating excellent partnership and collaboration with other functions within the company to support common initiatives on medical devices.
- Quality assurance testing of proprietary software using Agile development.
- Knowledge of FDA Design Control for Medical Devices and QSR Compliance Basics complying with FDA’s Medical Device 21 CFR 820 Quality System Regulation.

Requirements:

To succeed in this role, you should have the following experience:

- BA or MS in computer science, behavioral science or equivalent 5+ years of experience in software development.
- Experience in the integrated care space, aggregating data from different information systems such as EMR, census data, etc.
- Knowledge of Linux/Unix, programming and scripting languages such as; Python, Plotly, Plotly Express, R, Shell, MatLab, XML, Visual Basic, HTML, PROLOG, LISP, VoiceXML, Java, Perl, Unix shell, C/C++, 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.
- 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, provides, 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, IDRs and others.
- Proven evidence of released applications in health or fitness domains preferable.

Notes:

- In order to ensure a prompt and efficient processing of applications, candidates are encouraged to provide, along with their résumé, a detailed cover 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.

Compensation will be determined based on industry benchmarks and individualized to the candidate and will be in the range of \$85,000 - \$125,000 per year.

To apply:

To apply, please submit a cover letter highlighting your experience, resume and references to czopf@biotraceit.com. Only successful applicants will be contacted for an interview.

BioTraceIT™ is an equal opportunity employer and all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, national origin, disability status, protected veteran status, or any other characteristic protected by law.

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

[Quantifying pain to lead the path to wellness.](#)