

Technology & Innovation Development Manager

To apply please send a resume and cover letter to Alex Brown, Vice President of Business Development: alexbrown@beamdiagnosticsinc.com

POSITION & COMPANY SUMMARY:

BEAM Diagnostics, Inc. (BEAM) is a healthcare technology company focused on delivering a platform of assessment and analysis tools for clinical settings. Founded in 2017, BEAM is a small startup aiming to grow rapidly over the coming years.

BEAM Diagnostics, Inc. Is seeking a talented Data Engineer to lead and execute its technology development within the healthcare tech space. In addition to technical knowledge, a competitive candidate should have an interest in strategic planning of technology development.

This position is based in Roanoke, VA with a remote option. The candidate must be available to collaborate with team members via email, chat, and video calls during US EST business hours and to be available as needed to coordinate with collaborators and clients in other time zones.

DESCRIPTION AND RESPONSIBILITIES:

Reporting to the CEO, the Technology & Innovation Development Manager responsibilities shall include:

I. **Software and Technology Development**

- a. Perform necessary development of BEAM assets using an agile framework
- b. Oversee and collaborate with technology contractors to ensure proper performance of BEAM assets
- c. Collaborate with multiple teams to facilitate secure integration and data management between BEAM servers and healthcare providers (e.g., EMR). Utilize relational databases (SQL, HL7 V2) and other technologies (JSON, FHIR) as needed.
- d. Maintain proper code libraries and manage versions
- e. Perform other tasks as assigned by supervisor
- f. Document all work and commit code to a private, shared git repo
- g. Share updates, questions, and other ideas.

II. **Data Science and Architecture**

- a. Develop workflows for ingesting, cleaning, analyzing, and visualizing data relevant to the BEAM technology assets.
 - i. Produce and maintain well-commented scripts, flexibility for new datasets
 - ii. Data exploration and development/identification of statistical models relevant to scientific questions
 - iii. Report summary on findings and future suggestions
- b. Build and compare models to predict behavioral disease states using rigorous and appropriate methodologies
- c. Decision tree/decision forest(s) analysis
 - i. SVM with linear kernel, polynomial kernel, Gaussian kernel, RBF kernel
 - ii. Basic feedforward neural network
 - iii. Comparison of models to baseline(s)
 - iv. Selection of best model, description of explanatory variable relation to risk

- v. Report out on model selection, justification for next steps, data visualization for presentations, etc.
- vi. Prepare methodology written for academic audience
- d. Data visualization and report building. Working with collaborators to create comprehensive, professional, and data-backed reports to be sent to clients.
- e. Contribute to data sustainability and reuse planning with the team. All scripts, protocols, etc. created need to be usable, documented, and shared with all members of the team, with a forward focus on automation for future workflows.

MINIMUM QUALIFICATIONS:

- I. M.S. or Ph.D. in Computer science, data science, statistics, or related quantitative field. B.A. or B.S. candidates with a degree in these fields will be considered with 2+ years of relevant experience, and candidates without a degree will be considered with 4+ years relevant experience.
- II. Strong R and/or python programming skills
- III. Experience with predictive regression or machine-learning models
- IV. Demonstrated ability to self-teach and train others in new software tools and methods
- V. Knowledge and experience in methods of reproducible research and automation: git, GitHub, SQL databases, Docker, web automation tools
- VI. Knowledge and experience working with health data in secure environments
- VII. Ability to work collaboratively in teams with culturally- and technically diverse backgrounds
- VIII. Strong verbal and written communication skills
- IX. Strong data management and project management skills, including ability to manage multiple projects and deadlines while working with multiple teams

OTHER PREFERRED QUALIFICATIONS:

- I. Knowledge and experience working with behavioral data
- II. Knowledge and experience working with healthcare data and networks
- III. Knowledge and experience developing model interfaces and dashboards
- IV. Experience teaching and training teams in data management and data science software is a plus

BENEFITS:

- I. Health Insurance + Dental and Vision coverage
 - a. BEAM Diagnostics, Inc. pays all premiums for its employees, so employees do not pay to have insurance (Not including Dependents)
 - b. No Deductibles
 - c. \$8,000 annual Out-Of-Pocket Max
 - d. Low and sometimes no Co-Pays
- II. Full Remote Work, if desired
- III. Unrestricted Work hours
 - a. Task-oriented work expectations
 - b. We believe that you should work when it is best for you and your schedule!
- IV. Unrestricted Leave
 - a. We believe that going on vacation or taking a sick day shouldn't be a hassle. Take the time you need when you need it.
- V. Compensation will be commensurate with skills and experience.