



Be part of a dynamic team that is using nanotechnology to enable routine, accurate, cost-effective analysis of genomic structural variation, in support of our mission of elucidating the genetic underpinnings of disease, increasing diagnostic yield, and ultimately improving patient outcomes. Nabsys is the pioneer in high-definition electronic genome mapping. Headquartered in Providence, RI, Nabsys uses proprietary electronic nanodetectors to analyze long DNA molecules traveling at high velocity. Our first-generation instrument and consumables have been shipping to customers for a year. We are currently scaling proven technology to substantially reduce cost and time-to-answer, on our way to making genomic structural information available to every laboratory.

**Position: Bioinformatician – Structural Variation**

**Nature of Role:** This position is a key role. The successful candidate's work will impact the design, development, efficacy, and industry acceptance of the Nabsys informatics pipeline.

**Responsibilities:**

- Utilize publicly available databases to locate sets of clinically relevant large (>300 bp) structural variants (SVs) to be used to test, improve, and develop new methods of SV detection utilizing Nabsys HD Mapping® data
- Evaluate the efficacy of current Nabsys SV calling algorithms by making comparisons with orthogonal technologies
- Improve and develop working prototypes of new SV calling methods utilizing Nabsys data
- Add support for Nabsys data and SV calls into popular tools for SV visualization
- Publish comparisons between Nabsys SV calls and orthogonal technologies
- Collaborate with an experienced interdisciplinary staff

**Requirements:**

- M.S. or Ph.D. in Bioinformatics, Computational Biology, Computer Science, or related field
- 5+ years of experience applying quantitative methods for SV discovery and hypothesis-based SV testing
- Extensive experience utilizing a wide variety of tools to make SV calls using Illumina, PacBio, ONT, or optical mapping data
- Extensive experience with SV visualization tools
- Knowledge of publicly available SV databases and the ability to programmatically query and extract data from databases
- Excellent skills in bio-computational programming, scripting, querying, and performing statistical analysis using MATLAB, python, biopython, and SQL
- Solid mathematical, statistical, and analytical skills
- A pragmatic approach to problem solving
- Excellent organizational and interpersonal communication skills
- Thrive in a fast-paced and challenging environment with interdisciplinary collaboration

**Preference for prior experience, including:**

- Experience with optical mapping data
- Machine learning
- Programming experience in C++ or C#
- Cloud implementation and deployment experience

*Nabsys is an equal opportunity employer. All applicants will be considered for employment without attention to race, color, religion, sex, sexual orientation, gender identity, national origin, veteran or disability status.*



**Compensation:**

- Competitive salary
- Equity stake
- Benefits include health, dental, vision, 401(k), unlimited vacation, life insurance