302.683.1976



Information Visualization Research Scientist, Computational Biology and Informatics (CBIO), Agilent Laboratories, Santa Clara, CA

Agilent Laboratories, Agilent Technologies' central research laboratories in Santa Clara, CA has an immediate opening for a Research Scientist with experience in information visualization. CBIO is a growing, innovative group of researchers dedicated to multidisciplinary projects and having backgrounds in computer science, mathematics, physics, chemistry, cell biology and social science. CBIO is focused on leading-edge research and development in areas that will, over time, have direct impact on Agilent's future generations of measurement instruments for life science and chemical analysis and associated informatics products. You will have the opportunity to collaborate with world-class scientists both within Agilent Labs and outside, through our external collaborations.

For this position, we are seeking a candidate to identify opportunities to apply information visualization and visual analytics to analyze and interpret the large and diverse datasets being generated by Agilent's current and future life science and chemical analysis measurement instruments. This position is for a research scientist to help define and build experimental software systems addressing such topics as:

- · Visual integration of diverse data at multiple levels of abstraction and from multiple, linked perspectives
- Information exploration tools that enable users to interpret data coming from multiple measurement platforms
- Intuitive user navigation through/across large disjoint data sets
- · Graphical presentation of complex data and derived information, including non-structured information such as scientific text
- Multi-modal interaction--augmentation of visual channel with sonification, haptic interfaces
- Collaborative sensemaking--information sharing, presentation, annotation
- Modeling/simulation/prediction
- Representing uncertainty--visualizing contradictory information, alternative, imprecision

The qualified candidate should have a track record of scientific contribution (via publication, etc.) in one or more of the above areas. The candidate should also have a track record of pragmatic contribution, by having built working software systems that are used, and dealing with issues like:

- · Maintaining high performance and interactivity while visualizing large data sets
- · Strategies for accessing and computing across large data sets
- Integrating individual tools into an integrated data analysis workflow
- Evaluation techniques to determine the effectiveness of visualization design and interaction

The ideal candidate will be expected to manage his/her own research with minimal supervision yet be a team player with strong communication skills.

If applying, please describe in your cover letter what subject area or technology you would like to learn in the near future and explain why.

Qualifications:

- PhD or equivalent research plus three or more years of experience in an area of Computer Science, Cognitive Science or other relevant field, with a specialization in information visualization
- Demonstrated achievement in information visualization and/or visual analytics
- Experience with user-centered design methodologies
- Demonstrated expertise in exploratory software prototyping and system development
- Fluency in one or more object-oriented programming languages such as Java, C# or C++
- Ability to apply skills in new area problem domains with cooperation of appropriate domain experts
- Track record of innovation and scientific contribution, such as shown by peer-reviewed journal publication
- · Ability to provide technical leadership in an area of specialization
- · Self starting, requiring minimal supervision with strong problem solving skills
- Excellent communication, teamwork and leadership skills.

Desired Experience

- Three or more years of relevant experience
- Experience developing production software in a corporate environment and/or delivering research prototypes to such organizations
- Experience with data mining, stochastic/statistical analysis methods
- Experience with information visualization/analytics in analyzing large life science data sets; common bioinformatics tools & data sources
- · Familiarity with information retrieval and human-computer interaction approaches and technologies