

Research Data Scientist—Signal Processing, Time Series Analytics at Biomedical Diagnostics Startup

We are a Boston-area biomedical diagnostics startup company seeking a highly skilled signal processing scientist for time-series analytics to join our team.

Your mission will be to innovate lean, robust, efficient anomaly-detection algorithms and pipelines in time-series data, to improve patient outcomes against some of the most common causes of death in the world.

Required Qualifications

- Advanced training (MS or PhD preferred) in electrical engineering, computer science, applied mathematics, physics, or a related field with a focus on signal processing and machine learning
- Extensive experience in time series analysis, signal processing, and statistical modeling
- Demonstrated expertise in anomaly detection, clustering, and machine learning algorithms for time series data
- Strong background in statistical hypothesis testing and experimental design
- Proficiency in Python and experience with scientific computing libraries (e.g., NumPy, SciPy, scikit-learn)
- Exceptional analytical and problem-solving skills with meticulous attention to detail
- Exceptional quantitative skills (significant digits, units, choosing appropriate statistical tests) and formal reasoning (identifying key problems, defining null hypotheses, designing experiments to falsify null hypotheses, predicting outcomes, planning how potential outcomes address key problems and next steps, comparing actual outcomes to predictions, determining next steps)
- Strong record-keeping and written and oral communication skills
- Professionalism, a sense of mission, and a desire to work with others who feel the same in a fast-paced, collaborative research environment

Preferred Qualifications

- Experience with statistical and/or information-theoretic descriptions (signal detection as falsification of null hypothesis)
- Exceptional publication record (arXiv) and/or publication in reputable signal processing or machine learning journals/conference proceedings (e.g., IEEE ICASSP, AISTATS, JMLR)
- Experience in multidimensional time series and/or incorporating metadata into learning
- Experience with anomaly detection/clustering in short/sparse time series
- Knowledge of deep learning techniques for time series analysis

Particulars

- Company headquarters: Beverly, MA; on-site work required
- Competitive salary and equity compensation package

- Comprehensive health benefits and flexible paid time off

Why Join Us?

With the above qualifications, you could work anywhere. But ask yourself: do you want to be just a cog in someone else's machine? Punching a clock for a paycheck? Working on something sad, boring, or meaningless? Or do you want to be a mission-critical part of building things to save lives? If the answer to that last question is "yes," please send a short (~250-word) cover letter and resume/CV, including any links to your GitHub or other relevant work, to careers@astradx.com.

Note: Your cover letter should:

- Explain what it is about us, and/or about your background, that makes you interested in us specifically (~100 words)
- Mention one concept, idea, invention, or discovery that you've come across in the past year or so that you've found **really cool**, and describe **why** (~100 words). It can be related to this area, your own work, or something else