

Data Scientist – Image Processing / Imaging Analysis at Biomedical Diagnostics Startup

We are a Boston-area biomedical diagnostics startup company seeking a highly skilled Image Processing/Imaging Analysis Data Scientist to join our team.

Your mission will be to develop and optimize computational pipelines for processing microscopy images. The ideal candidate will have experience implementing fast and robust image analysis algorithms in Python, improving image quality through correction and enhancement techniques, and developing automated workflows for extracting quantitative information from biological images.

This position requires strong programming skills, an understanding of digital image processing, and the ability to work closely with scientists to transform raw imaging data into high-quality datasets suitable for downstream analysis and machine learning.

Required Qualifications

- MS, MEng, or PhD in Computer Science, Biomedical Engineering, Physics, Applied Mathematics, or a related quantitative field
- Strong proficiency in Python
- Experience with scientific computing libraries:
 - NumPy
 - SciPy
 - Pandas
 - Matplotlib
- Experience using image processing libraries such as:
 - scikit-image
 - OpenCV
- Strong understanding of digital image processing principles including:
 - Image filtering
 - Spatial transformations
 - Image interpolation
 - Frequency-domain concepts
 - Segmentation algorithms
- Experience processing large imaging datasets, including brightfield, darkfield, and other modalities
- Familiarity with version control (Git)
- Strong analytical and problem-solving skills

Preferred Qualifications

- Experience with microscopy and/or biomedical imaging
- Experience with focus metrics

- Experience processing multi-channel microscopy images
- Experience with image segmentation methods including thresholding, watershed, contour detection, and machine learning-based approaches
- Optical and computational superresolution techniques
- Familiarity with machine learning frameworks such as scikit-learn, XGBoost, TensorFlow, or PyTorch
- Experience optimizing large-scale image processing pipelines through parallelization and profiling

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