Imaging Scientist

The Company

NinePoint Medical is a fast-paced medical device start-up based out of Bedford MA. We develop, manufacture and commercialize cutting-edge medical imaging products with a big vision to detect, diagnose, and treat cancer before it becomes cancer. Today's standard of care for diagnosis of disease relies on obtaining a tissue sample and performing costly processing and expert review of tissue sections. Using breakthrough optical imaging technology along with advanced machine learning algorithms, NinePoint Medical will provide treating physicians with real-time diagnostic capability, thus streamlining patient care, reducing cost, and improving outcomes.

Job Summary

This is an exciting opportunity to join a talented image processing and analytics team, working on the development and commercialization of state-of-the-art medical imaging devices. We are seeking a creative Data/Imaging Scientist who wants to make a bigger impact on society through healthcare. The qualified candidate will have experience or the desire to develop advanced image processing algorithms based on both "classical" engineered features, as well as learned features (machine/deep learning). If you join our team, you will work alongside experts in several different scientific and engineering disciplines to develop imaging algorithms for registration, segmentation, detection and analysis of medical image data.

Key responsibilities:

- Explore medical image data and identify computer-detectable image features.
- Design, train and test image processing algorithms based on both classical and learned features.
- Execute diverse tasks related to the development of complete integrated systems (console, optical probes and software), from concept through commercialization.
- Participate in the development of tools for data labeling and review.
- Generate and document test protocols and engineering studies.
- Keep up to date with technology trends. Generate concepts and principles and investigate their feasibility for current and future products.

Desirable experience:

- Experience with deep learning technology stacks such as Google Tensorflow, Caffe, Theano or Torch.
- Experience/understanding of medical image formation.
- Understanding of statistical principles as applied to data science.

- Optical coherence tomography, preferably swept-source and catheter-based, or a similar technology.
- Work experience within an FDA-regulated environment.

Requirements:

- Advanced degree: M.S. or PhD in relevant engineering or scientific fields (e.g. electrical/biomedical engineering, physics, mathematics, etc…).
- Proficient in signal/image processing, registration or segmentation.
- Proficient in Matlab and/or Python for data and image analysis.
- Experience with design and development of image processing algorithms.
- Experience with machine learning, deep learning or computer-aided detection as applied to images.
- Must be a self-starter and a fast learner, must work efficiently, both independently and within a team, must have very good problem solving skills and attention to details.
- Excellent written and verbal communication skills required.
- The ideal candidate should have the drive and aptitude to continuously learn about new fields and technologies and implement novel solutions to image processing problems.

The Nine Points for Success

1. **Excellence**: constantly create high quality products that improve patient care
2. **Quality**: be better than industry standard in the quality of our people and the efficiency of our operations
3. **Accountability**: Cultivate individual responsibility and promote personal and professional growth
4. **Innovation**: value high quality innovation
5. **Commitment**: create and maintain a positive work environment that is fun and rewarding to be a part of
6. **Teamwork**: value relationships that build respect and foster team work
7. **Communication**: utilize good communication
8. **Empowerment**: make a difference
9. **Diversity**: value diversity of people and opinion