RHAEOS

Data Scientist

909 Davis Street Suite 500
Evanston, IL 60201
www.rhaeos.com

Contact:
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Job Description

Rhaeos is a clinical-stage, venture-backed medical device startup pioneering a suite of wireless, wearable, and non-invasive diagnostic sensors. As a Data Scientist at Rhaeos you will have the opportunity to drive diagnostic algorithm development for designated FDA Breakthrough devices, turning streams of novel sensor data into life-changing feedback for patients in need. This position is based in Chicago and Evanston, IL, within a company led by a seasoned medical device team.

What you will be responsible for:

Technical ownership of the ML development cycle:
- Provide direction for data management and the development of algorithms across the ML development cycle from setting up data pipelines to deploying products.
- Collaborate to architect and execute workflows for data ingestion, labeling, storage and access control.
- Drive needs and contribute to continuous improvement in data pre-processing strategies and feature extraction to support improved model performance.
- Own the model architecture design, implementation and execution, including processes to ensure robust model visibility, repeatability, real-world consistency and understanding of performance responses to parameter, feature and data split changes.
- Communicate complex topics to people from a variety of backgrounds including technical and non-technical stakeholders

Delivering classification algorithms as part of a product ecosystem:
- Collaborate with the broader engineering, commercial, clinical and regulatory teams to bring algorithms from concept to real-world healthcare implementation.
- Collaborate with the software development team to implement models into end-user products.
- Drive innovation in machine learning solutions, proactively identifying and addressing technical challenges, and contributing to the continuous improvement of product performance.
- Collaborate to develop and implement new strategies around machine learning algorithm pipelines, implementations, and development structures.

Ensuring algorithm risk management, quality and regulatory compliance:
- Deliver technical documentation for FDA regulatory submissions.
- Ensure all deliverables meet rigorous quality standards, including adherence to FDA Good Machine Learning Practices (GMLP), ISO13485, IEC62304 and other relevant industry standards.

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- Collaborate to design, implement and monitor algorithm data management and change control.

Your Qualifications

Essential Experience

- Master's Degree in a quantitative discipline (statistics, computer science, biomedical engineering, or similar) or Bachelor's Degree with 2+ years of industry experience.
- Experience developing signal processing and machine learning algorithms for sensing applications involving time-series data.
- Proficiency in Python and experience with machine learning frameworks (e.g., PyTorch, TensorFlow).
- Solid understanding of data preprocessing techniques, feature extraction methodologies, and model evaluation metrics.

Additional Beneficial Skills/Knowledge

- Experience developing signal processing and machine learning algorithms specifically for physiological sensing applications involving time-series sensor data.
- Familiarity with deploying algorithms on cloud platforms and within mobile or embedded systems is a plus.
- Strong grasp of model explainability techniques and their application to regulated environments.
- Hands-on experience working with large-scale data solutions, including distributed data processing frameworks (e.g., MapReduce, Spark).
- Ability to design and optimize scalable frameworks for running machine learning experiments and processing high-dimensional datasets.
- Familiarity with AWS or other cloud platforms for scalable data analysis and deployment/monitoring of machine learning algorithms.
- Excellent interpersonal and communication skills, with the ability to work effectively across teams and distill complex technical material to meaningful information for non-technical stakeholders.

Other

- Work Location: Evanston or Chicago, IL.
- Full-time with benefits:
  - Medical, dental, vision and life insurance
  - Health Savings Account plan
  - 401k plan with company matching

- o Paid time off: 12 company holidays + 5 personal/sick days + 15 vacation days
- o Monthly Chicago Transit commuter benefit stipend