Associate Data Scientist

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Titan Advanced Energy Solutions, Inc., Salem, MA

Titan Advanced Energy Solutions, headquartered in Salem, MA, develops revolutionary, ultrasound-based battery cell inspection systems. Using non-destructive, high-resolution, high-speed ultrasound technology, Titan's IonSight analyzes cell morphology to detect critical manufacturing anomalies, directly addressing safety concerns and in-field risks. The novel in-line technology integrates into existing cell manufacturing processes to decrease the cost of quality, accurately classify cell quality grades, and evaluate lifetime performance and safety characteristics.

Titan's innovative strides have been recognized with numerous awards and funding from top clean energy programs and institutions, including Greentown Labs, the Massachusetts Clean Energy Center (MassCEC) and the Department of Energy. Growing and poised to continue this positive momentum, this is an exciting time to join the Titan team!

Reporting to the Principal Data Scientist, you will work with our multi-disciplined, fast-paced team on a variety of interesting projects. We are looking for an independent thinker who is highly self-motivated, driven to achieve, goal and team-oriented, and passionate about clean technology. The ideal candidate will bring a passion for solving important problems with machine learning and deep learning approaches in ways that create data driven solutions leading to end products. Your bias to action combined with a learning mindset allows you to take calculated risks and unlock opportunities along the way. You will work with a diverse team on an array of cross-disciplinary projects centered around ultrasound time series signal data and composite image data; you will be responsible for holistic analysis, building machine learning models, feature development, and improvements to models in production. A successful candidate for this role will have a solid foundation of concepts in computer science and mathematics, experience analyzing and visualizing large and complex data sets, and experience building machine learning models to aid in analysis.

Duties and Responsibilities:

- Guided analysis of ultrasound data from multiple battery types, looking for new ways to find anomalies, defects, or other notable features
- Use Machine Learning techniques further analysis
- Work with other engineering teams to develop new approaches to processing ultrasound data
- Prepare models and analysis for use in production
- Follow engineering best practices across the data team, including code reviews, testing, reproducibility
- Generate and maintain documentation as required
- Other duties as assigned

Required skills:

- 0-2 years industry experience in data science, machine learning, or similar positions
- Self-motivated and pro-active, with multi-tasking and critical thinking capabilities
- Expert proficiency with Python and related libraries
- Experience using Git or similar version control tools in a team environment
- Experience with relational databases such as Snowflake
- Good knowledge of cloud tools (AWS, GCP, Azure)
- Excellent understanding of algorithms, data structures, coding standards

Preferred skills:

- BS and/or MS in Physics, Computer Science, Mathematics or similar technical field
- Practical experience with deep learning frameworks such as PyTorch and Tensorflow
- Experience with Linux and shell scripting
- Experience with Docker (docker-compose and swarm)
- Previous working experience with ultrasound signal data or similar
- Foundational knowledge of signal processing
- Start-up experience a plus

Personal Values:

- Bias to action, self-motivated and entrepreneurial spirit
- Attention to detail, effective time management, and pride in work
- Dependable, trustworthy, empathetic & full of integrity
- Strong collaborative communication skills; able to build consensus internally and externally

Benefits:

- Competitive Pay and Equity Incentive
- Medical, Dental, Vision 80% covered – currently UHC HMO & PPO
- Flex Spending – Health, Dependent Care, and Transit
- 401(k)
- PTO and Holidays
- Long Term Disability 100% covered

Learn more at www.titanaes.com   Send your resume to Careers@titanaes.com.

Titan welcomes applicants from every background – our diversity helps us thrive and serve our customers and each other. All employment decisions are based on qualifications, merit and business needs, without discrimination or bias. We are proud to be an equal opportunity employer. If you need assistance or accommodation due to a disability, please let us know.