JOB DESCRIPTION – Senior Data Scientist

Department: Data Science & Engineering	Supervisor: Vice President – Data Science & Engineering
# of Direct Reports: 0-3 (depends on prior experience)	Status: Salary/Exempt

Here is an opportunity to join Sentient Science, a company whose solutions lie at the convergence of many exponentially accelerating innovative technologies: Cloud, edge computing and the Industrial Internet of Things (IoT); AI, machine learning and deep learning; Big Data and analytics; and 3D printing (additive manufacturing). Sentient Science helps customers lower the costs of designing, operating, and sustaining their high value mechanical assets by providing digital twin technology that predicts the life of mechanical systems. Sentient's DigitalClone® SaaS solutions use proprietary algorithms derived from physics-based modeling and machine learning. Help us achieve our vision of a world where rotorcraft manufacturers, wind energy operators and railroads rely on Sentient DigitalClone for a digital implementation of their O&M cost reduction strategy. And a high concentration of PhDs will keep you intellectually stimulated and challenged.

Position Summary:

The Senior/Lead Data Scientist leads efforts to expand the data science capabilities of Sentient's cloud-based predictive analytics platform. Individual in this position will have a solid background in production-level machine learning systems with broad exposure to a wide variety of algorithmic techniques (demonstrable proof of impactful work in areas such as damage-anomaly detection, natural language processing, explainability-driven deep learning and time-series forecasting is valuable). Our team particularly values experience in building inferential algorithms for high-stake decisions while dealing with noisy, diverse, distributed datasets. Being able to communicate complex concepts in simple language to diverse stakeholders with an unwavering commitment to empathy and customer obsession is highly desired. The title and associated responsibility for the position can be modified for the right candidate – if our mission inspires you, please send resume and cover letter to careers@sentientscience.com.

Responsibilities:

- Building and Implementing the machine learning based statistical models to predict certain damage modes in major components in wind turbines such as Gearbox.
- Reviews large data sets (SCADA) of sensor-derived observations and alarm logs from operating wind turbines and utilizes subject matter expertise to ascertain veracity of these data
- Develops, implements and tests statistical algorithms for anomaly detection in large datasets from fleets of field-operating large machines e.g. wind turbines and rotorcraft
- Lead and mentor junior team members in design, optimization and production-deployment of machine learning and statistical forecasting models while adhering to timelines governed by the product development roadmap
- Interface with customer-facing executives to stay abreast with voice of the customer and update technical roadmap accordingly.

Experience & Qualifications:

- Masters or Ph.D. in mechanical engineering, industrial engineering, wind energy systems, aerospace engineering, statistics, data science, computer science, or related discipline
- Demonstrable knowledge of theory and application of (one or more) techniques across supervised/unsupervised learning, natural language processing, computer vision and statistical inference
- Demonstrated experience working with large (TB+) repositories of structured and unstructured data spanning forms such as numeric, text, images/rasters
- Familiar with some form of physics-based modeling, such as FEM, CFD, MD, MC, DFT, etc.
- Proficiency working with a modern programming language focused on data analysis and machine learning (e.g. Python, R, Julia, Matlab)

- Understanding/familiarity with deploying, monitoring and retraining machine learning models in cloud-facing production setting (AWS preferred)
- Proficiency with relevant tools and libraries for a collaborative machine learning workflow: scikit-learn, git etc.
- Knowledgeable in programmatically consuming data from APIs and other micro-services
- Possess a curious mind, insatiable drive to learn proactively and profound humility and empathy for your colleagues as well the customer
- US citizenship required

Benefits

- Unlimited paid time-off
- Flexible working hours and fully remote option available
- Employer-sponsored health insurance
- Our commitment to **inclusion** across race, gender, age, religion, identity, and experience drives us forward every day