GUARDIAN CAPITAL

JOB TITLE: Junior Data Scientist
DEPARTMENT: I^3 Investments, Guardian Capital LP ("GCLP")
REPORTS TO: Managing Director, I^3 Investments
LOCATION: Commerce Court West, 199 Bay Street, Toronto

JOB STATEMENT:

The I^3 Investments group is part of Guardian Capital LP, and harnesses the synergies of experienced quantitative portfolio managers and engineers that combine fundamental and alternative big data through sophisticated statistical analysis and Artificial Intelligence to seek organic growth via outperformance.

We are currently in need of a Junior Data Scientist to join our fast-growing team. The ideal candidate will be intricately involved in running analytical experiments in a methodical manner, and will regularly evaluate alternate models. This is the perfect opportunity for the successful candidate to become a part of an innovative and energetic team that develops analysis tools which will influence both our products, performance and clients.

Broad responsibilities include:

- Assisting in the design/maintenance and development of company's proprietary R&D infrastructure, data integrity and architecture;
- Working closely with Portfolio Engineers and Full-Stack Developers in enhancements to stock selection models;
- Researching and developing statistical learning models for data analysis;
- Collaborate with product management and portfolio engineers to understand company needs and devise possible solutions;
- Keeping up-to-date with latest technology trends;
- Communicating results and ideas to key decision makers;
- Implementing new statistical or other mathematical methodologies as needed for specific models or analysis; and
- Optimizing joint development efforts through appropriate database use and project design.

ESSENTIAL FUNCTIONS:

This position will consist of the following primary responsibilities:

Function:	**Approximate Time Allocation**
Development – Machine Learning Engineering	45%
Production - Data Management	45%
Operational support	10%

Specific Responsibilities:

Development – Machine Learning (ML) Engineering (45%)

1. Designing and programming feature selection and feature engineering processes.
2. Testing and building ML and Neural Network (NN) algorithms for the purposes of stock selection and portfolio allocation, using programming tools that include, R, Python, FactSet, SQL, Java, and Angular. Higher-level programming skills are required in projects using multiple investment analytic systems. Applications include statistical analysis and machine learning techniques covering both structured and un-structured data.
3. Developing and supporting custom interfaces and other proprietary applications; design and deploy custom applications written in R, Python. The software often involves complex mathematical formulas to perform quantitative analysis on stock selection and global risk models.
4. While financial domain knowledge is not necessary, developing an understanding for the nuanced problems with financial data and problem solving as necessary is crucial.

Production – Data Management (45%)

5. Identifying and evaluating enhancements to the large-scale research databases. Ensuring smooth Extract Transfer Load (ETL) functionality between various data sources (APIs, SQL, FactSet) and local data repositories (SQL Server). Using statistical software to investigate data anomalies and missing values. Interacting with outside vendors to resolve data and programming issues. Production environment responsibilities include: updating the proprietary stock selection model daily, developing rich reports leveraging Python, R; creating and maintaining SQL stored procedures for deriving report data; develop and support the tools used for integrating reports with custom or third party applications.

Operational Support (10%):

6. Coordinating internal reporting of risk and performance based metrics for internal and client updates. This includes knowledge of risk and performance attribution outputs, as well as implementation of factor performance libraries. Helping with quarterly deliverables required to update power point presentations for different mandates.

QUALIFICATIONS:

- An undergraduate degree in Computer Science/Engineering/Mathematics/Statistics
- A good understanding of software development
- Strong proficiency in programming and familiarity with SQL, R, Python.
- Strong communication skills, proficiency in English, and ability to explain complex topics that facilitates understanding
- Ability to work within a team environment with multiple reporting relationships

COMPENSATION:

Commensurate with experience

If you are interested in applying for this position, please forward a cover letter and resume in confidence to careers@guardiancapital.com.

Guardian Capital is committed to accessibility in employment and to ensuring equal access to employment opportunities for candidates, including persons with disabilities. In compliance with AODA, Guardian Capital will endeavour to provide reasonable accommodation to persons with disabilities in the recruitment process upon request. If you are selected for an interview and you require accommodation due to disability during the recruitment process, please notify the hiring manager upon scheduling your interview.

We thank all applicants for their interest but only those selected for an interview will be contacted.