Job Description



JOB TITLE: Senior Data Scientist

GRADE: 3

REPORTING TO: Pricing Manager

LOCATION: London

# **ABOUT US:**

ERS is the UK's largest specialist motor insurer with an A+ rating. We recognise that for some, motor insurance is more than just a must-have; it's a way of taking care of what stands at the heart of their passion or livelihood. For those people, standard insurance isn't enough. That's why we work exclusively with motor insurance brokers to help get under the skin of the most difficult insurance risks, helping build products to meet their customer’s needs.

**THE ROLE:**

To provide technical and thought leadership in the use of data science, machine learning and other statistical techniques within ERS and the pricing team in particular. The successful applicant will use advanced methodologies to support business functions by drawing insights from internal and external data sources on insurance products, customers and operational processes as well as helping shape the strategic direction of data usage within the business.

The successful applicant will be a talented and experienced Data Scientist who will work within the technical pricing team with an authorative view of producing predictive models which can and will be implemented into or in support of business front end solutions. The role holder will develop and use advanced techniques to provide valuable insight and analytical services over diverse large scale structured and unstrctured datasets. The role holder supports pricing in the first instance, but will also support a variety of other functions including: marketing, operations and counter fraud.

Working closely with technical pricing analysts and data analysts elsewhere in the business, the role holder will be responsible for expanding the data processing and technical modelling framework; establishing efficient ways of implementing segmentation and predictive models; ensure that reusable data assets build smoothly on a regular basis; and increase automation across the pricing factor creation and modelling process.

Need for exceptionally strong academic background combined with a passion for innovation, outstanding technical skills in a variety of programming languages, an in depth understanding of ML techniques grounded with an exceptional depth of statistical expertise. Ideally the candidates will be technically focussed, have a good understanding of infrastructure requirements to run advanced data science models and is someone who learns new programming languages for fun therebydelivering robust solutions. Data Science experience is essential awhilst insurance domain knowledge perferable.

**KEY RESPONSIBILITIES:**

* Ensure that the execution of the Pricing Delivery Plan is on time by delivering required activities within agreed timescales and to a high standard
* Take responsibility for the delivery of specific pieces of Data Science work, managing the overall process of delivery and taking responsibility for data, modelling and communication of analysis to stakeholders; including clear and actionable insight through advanced analysis and interpretation of multiple complex data sets
* Design and develop sophisticated and innovative data products that will have considerable and measurable impact; either in price determination, cost reduction, revenue increase or enable new business opportunities
* Work closely with the product deployment teams to enable the smooth and rapid transitioning of prototype data products and predictive models into robust product assets to be deployed into the business or market
* Apply thought leadership to help identify, investigate and solutions for currently known or unknown issues/advancements which increase the profitability and value of ERS.
* Develop, operate, support and continually optimise a common data analytical platform that can support rapid discovery and deployment of data products and enables a community of any data scientists and actuaries to easily obtain insight
* Act as a mentor to more junior members of the Data Science team as well as the wider Pricing Team by providing best practice guidance and technical reviews
* Establish credibility and thought leadership in the area of data science and to engage with the business intelligence and MI teams to ensure best practice, influence and contribute to the development of strategic vision for data usage within the company.
* Embody and amplify the ERS values in all aspects of day to day activity ensuring that all interactions and engagements are carried out with the highest ethical and professional standards and that all work is accomplished with quality and in accordance with ERS values
* Carry out other reasonable tasks as required by line management

*The above duties and responsibilities are not an exhaustive list and you may be required to undertake any other reasonable duties compatible with your experience and competencies. This description may be varied from time to time to reflect changing business requirements.*

**KEY DESIRABLE ATTRIBUTES:**

Candidates must compare favorably against many of the points below:

* Exceptional statistical skills, experience of building predictive models using a wide variety of tools and techniques (e.g. linear or logistic regression, gradient boosted machines, random forest, regularisation, neural networks)
* Strong academic background, e.g. expect a Masters Degree or Doctorate in computer science, engineering, physics, actuarial science, statistics or maths based equivalent
* Advanced data manipulation or experience of managing large-scale data sets within an analytical function (e.g. dplyr, pandas, SQL, etc.)
* Advanced experience of commercial data science or analytics software (e.g. Python, R, SAS/WPS, MATLAB etc.)
  + Knowledge or advanced experience in another coding languages, such as C, C++, C#/.NET and/or Java would be considered
* Working knowledge of relevant development environments (e.g. PyCharm, RStudio, Visual Studio Code, eclipse) and shell scripting (e.g. Bash, PowerShell), version control (e.g. git, Subversion, Mercurial) etc
* A good understanding and the ability to communicate to IT the infrastructure and hardware requirements .needed to support a highly functioning DS team.
* Capability to reliably review work of others and advise on best practice to modellers and coders.
* Commercially aware with experience in applying data science methodologies to real-world problems within a commercial environment
* Non-life insurance domain knowledge is preferable but not essential

**KEY PERSONAL DESIRABLES:**

* Strong analytical, quantitative, problem-solving, and critical thinking skills
* Excellent written, verbal and presentation communication skills
* Highly organized with efficient planning and delivery capabilities
* Comfortable leading and owning processes involving stakeholders across the business
* Excellent interpersonal skills and the ability to maintain effective working relationships
* Team player who brings out the best in others
* Commercially and financially aware

Name (PRINT): .…………………………………………………………………

Signature: …………………………………………………………………………

Date: …………………………………………………………………………………