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| **Role title:** | Data Science Analyst (UK and Ireland) | **Responsible to:** | Pricing & Data Science Manager (UK&Ireland) |
| **Division:** | Underwriting, Pricing and Insurance | **Department:** | Underwriting & Pricing (UK & Ireland) |
| **Direct Reports and Level:** | N/A | **Scope:** | UK & Ireland, Medical & Dental, All Segments |
| **Scale:** | £0 budget£0 income  |
| **Regulated Function(s) Held:** | None |
| **Evaluation Level** | Core 1 | **Role Family** | Member Risk and Exposure |

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| **Overall Role Purpose** |
| The Data Science Analyst will be a technical analyst responsible for assisting the Pricing & Data Science Manager and Data Scientist in maintaining and running data science models to enhance MPS’s ability to price competitively, underwrite effectively, acquire and retain members efficiently and design and develop products that meet and exceed the needs of members. The Data Science Analyst will be a self-starter who owns their own personal development in the data science space. |

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| **Accountabilities (RACI)** | **Measures of Success/KPIs** |
| **Strategic Leadership** * Provide matrix support to analysts to reinforce MPS’s strategic data pillar
 | * Corporate Strategic priorities Vs plan
* Stakeholder feedback
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| **Financial*** Assist the Data Scientist in ensuring the sustainability of MPS through producing models that aid with robust actuarial and technical pricing which is then informed by market and competitive insight to result in the final retail price (subscriptions) taken to market
 | * Member numbers Vs plan (retention, acquisition and win-back activity)
* Income Vs plan (retention, acquisition and win-back activity)
* MPS Combined Operating Ratios
* Loss Ratios
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| **Member*** Understand the effects of data science models on MPS’s membership and broaden understanding of data science techniques and their impacts within stakeholder groups
 | * Net Promoter Score
* Member Satisfaction Survey
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| **People*** Be a champion of data science across Commercial Services, showcasing what it is and how it can be used to support
 | * Stakeholder feedback
* Evidence of upskilling within the division
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| **Risk*** Ensuring that data science is cognisant of the risks involved in clinical negligence and indemnity (both claims and ‘non-claims’) particularly regarding long-tail exposure to birth injury risks and periodontal disease
 | * Risk & Control Self-assessments and Audit Actions
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| **Responsibilities (RACI)** |
| * Extract, mine and understand MPS data by exploring further areas to understand MPS’s membership looking at metrics such as lapse rates, lifetime value and contribution.
* Work with the Pricing team to support pricing and reserving work by using advanced statistical multivariate techniques where appropriate.
* Work with the Data Curation and Preparation teams in MEDD to ‘productionise’ existing and future models to ensure that there is a strict model governance, change process as well as agility to make any adjustments.
* Monitor the performance of existing models and ‘iterate’, where required, by considering new data and new modelling techniques.
* ’Speculate’ on what existing, but unused, data can be considered during modelling processes, identifying data quality issues.
* Assist the Data Scientists in areas where data science techniques can be utilised to enhance decisions and provide real business benefit.
* Undertake other duties and tasks that from time to time may be allocated to the role holder that are appropriate to the level or role.
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| **Key Governance Responsibilities** |
| * None although may attend governance committees such as PPUC (Product, Pricing and Underwriting Committee) or product and pricing sub-committees as required
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| **Leadership Framework Competencies** | **Level** |
| Fresh Thinking | Leading Others |
| Building Capability in Self and Others | Leading Self |
| Influencing Others | Leading Self |
| Collaborating for Results | Leading Self |
| Leading Self and Others | Leading Self |
| Commercial and Risk Thinking  | Leading Self |

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|  | **Knowledge and Qualifications** | **Skills** | **Experience** |
| **Essential** | * Numerical first degree
* Knowledge of predictive modelling and machine learning techniques
 | * Ability to communicate complex issues in a clear manner.
* Stakeholder management skills and an ability to build and maintain relationships within the division and across the business.
* Strong MS Excel (Spreadsheet modelling using advanced Excel functions, VBA, and pivots), Word skills and Power Point Skills
* Familiarity with SQL
* An understanding of both supervised and unsupervised modelling techniques including Regression, GLMs, GBMs, Decision Trees, Random Forests and Clustering, and their application to real world business problems.
* Working knowledge of Python/R and their respective data manipulation, machine learning and visualisation packages.
* Understanding of version control software such as Git
 | * Experience in development and maintenance of statistical models
* Relevant analytical experience
* Experience of ipynb notebook format with clear markdowns
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| **Desirable** | * MSc/PhD in Data Science or related field
* Data science certification or equivalent on the job learning
* Knowledge of clinical negligence indemnity
* Knowledge of general insurance market
 | * Keen analytical, project management and problem-solving skills
* Pragmatic business sense including understanding of finance, accounting, economics
 | * Experience of using pricing software
* Experience of working in regulated environment
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