GamCare

Job Profile

JOB TITLE: Machine Learning Engineer	**REPORTS TO:** Head of Data and Business Insights

JOB PURPOSE:
GamCare will be providing the National System Coordinator function for the National Gambling Treatment System (NGTS) from April 2023.

The NGTS function will.
- Mobilise and support the transformation of the NGTS
- Ensure continuous improvement of service delivery and outcomes for service users, through the implementation and monitoring of robust governance and knowledge management processes
- Increase geographical footprint of services delivery
- Ensure effective coordination between national and regional providers with strategic oversight of the operational issues

The Machine Learning Engineer will create highly efficient self-learning applications that can adapt and evolve over time, pushing the boundaries of applying AI technology in our practice. You will be a key figure in the Data and Insights team. You will help NGTS providers and GamCare teams build a deep understanding of machine learning practices so they can design and deliver the services that their users need. The Machine Learning Engineer will support the delivery of an evidence-based approach to identifying, recognising and understanding future challenges, ensuring the entire organisation is aligned to delivering our purpose and values.

DIMENSIONS:
- Direct Reports: n/a
- Budgets managed: n/a
- Financial targets: n/a
- KPIs – will be in line with GamCare strategic business objectives, GambleAware contract KPIs and legislation requirements

INTERNAL AND EXTERNAL CONTACTS:
Internal
- Operates as part of the Quality and Innovation Directorate
- Work closely with Gamcare Systems colleagues and GamCare Data and Insights colleagues
- Work across and in conjunction with all GamCare directorates to advise on the design and application of machine learning systems and algorithms in line with Business Objectives

External
- Work with NGTS providers to ensure that machine learning products are embed in their practices.
- Lead and support innovation in the field of machine learning opportunities that support GamCare business objectives

OVERALL ACCOUNTABILITIES:

- Working with NGTS providers, GamCare Data and Insights team and Service and Digital managers to determine and refine machine learning objectives and run machine learning tests and experiments.
- Designing machine learning systems and self-running artificial intelligence (AI) software to automate predictive models.
- Acting as the subject expert for machine learning to ensure the development and implementation of cutting-edge artificial intelligence products.
- Transforming data science prototypes and applying appropriate ML algorithms and tools.
- Ensuring that algorithms generate accurate user recommendations.
- Turning unstructured data into useful information by auto-tagging images and text-to-speech conversions.
- Solving complex problems with multi-layered data sets, as well as optimizing existing machine learning libraries and frameworks.
- Developing ML algorithms to analyse huge volumes of historical data to make predictions.
- Running tests, performing statistical analysis, and interpreting test results.
- Documenting machine learning processes.
- Keeping abreast of developments in machine learning.
- Proactively engage with colleagues across NGTS to ensure that our policy, practice and promotion activity is underpinned by robust evidence and achieves impact.
- Develop and maintain effective relationships and networks – including NGTS providers, GamCare colleagues, and external stakeholders.
- Support the development and training of the Data and Insights team to machine learning methodologies

Person Specification – Essential Criteria

Qualifications/ Knowledge

- Demonstrable experience in this area

- Professional qualification – Bachelor's degree in computer science, data science, mathematics, or a related field. Master's degree in computational linguistics, data analytics, or similar will be advantageous.

- Evidence of CPD Training/Qualifications

Experience

- Demonstrable knowledge, experience in and passion for machine learning.
- Proven experience of understanding business user needs.
- Advanced proficiency with Python, Java, and R code writing.
- Extensive knowledge of ML frameworks, libraries, data structures, data modelling, and software architecture.
- In-depth knowledge of mathematics, statistics, and algorithms

Additional Criteria:

Skills

- Ability of working with people from diverse backgrounds in a confident manner.
- Ability to work competently and collaboratively as part of the Data & Insights Team.
- Being self-motivated and highly organised.
- Analytical mind and business acumen
- Excellent organisational skills and being deadline oriented.
- Self-motivation and management of numerous work streams
- Personal resilience in handling a demanding workload with competing priorities
- Ability to maintain confidentiality of all data and information
- Problem-solving and analytical aptitude
- Effective communication (written and verbal) and interpersonal skills

Circumstances

- Flexibility in working hours and location, as per contract of employment.
- Able to attend meetings and events outside of normal working hours if required OR able to travel to a number of locations and to attend meetings outside normal working hours.

To be noted: This job description will be reviewed regularly. Any changes will be discussed with the post holder. This is not an exhaustive list of duties and responsibilities the post holder may be required to undertake other duties which fall within the grade of the job, in discussion with your line manager.