

Job Title: Lead Analyst, Data Science

Corporate Grade: AVP

Reports to (Line Manager's Job Title): Senior Data Science Manager

Direct Reports (if applicable): N/A

Business Area: Barclays UK Cards

Department/Function Level 1: Barclays UK

Department/Function Level 2: UK Cards, Strategic Analytics

Primary Location: London/Northampton

About UK Cards

Everything we do at Barclays starts and ends with helping people move forward in their lives. That means putting around 24 million retail customers and almost one million business banking clients at the heart of everything we do. It means thinking differently to help them tackle the challenges of today and prepare for the future. It means connecting with each other as teams and as a business, and working together seamlessly. It means listening to and understanding our customers, clients and colleagues. And it means embracing technology, constantly questioning and always innovating. We all have a part to play in the future, and we can all seize the opportunities the future offers. This is Barclays, and this is where you need to be.

At Barclays we are redefining the future of banking. #LetsGoForward

The role will help shape the future growth strategy of Barclaycard - UK's largest and most successful credit card business. Fifty years ago, Barclaycard was the first to introduce credit cards to the UK, and we've been innovating ever since. Today we are a full-spectrum lender, with a diverse range of products from great rewards cards and flexible borrowing solutions to simple credit builder products, and everything in between.

Dynamic working gives everyone at Barclays the opportunity to integrate professional and personal lives. If you have a need for flexibility then please discuss this with the Hiring Manager.

About Strategic Analytics

This role is part of the Strategic Analytics team that shapes UK Credit Cards strategy using data analytics as the key competitive tool.

With a portfolio of 10m customers & £16 bn in assets, Data driven intelligence is absolutely integral to our future growth strategy. We collect millions of data records every day from customer's Credit card transactions, Account Management, Servicing interactions through Website or Call center, Credit Reference Agencies & Banking Relationship data.

We're committed to going much further in harnessing power of our enormous data assets to create amazing customer experiences, deliver digital services, inform strategic asset growth options and optimise risk-reward trade-offs in our business decisions.

Overall purpose of role

You will take a lead to develop advanced data science capability for Barclaycard. You will need to apply machine learning modelling techniques for outcomes on customer insights, marketing effectiveness, risk management and product development.

You and your team will develop new growth opportunities by analysing patterns in vast collections of existing & new data sources; generate models that shapes and informs key strategic and business decisions and inspire stakeholders with algorithmic solutions of complex business problems.

Key Accountabilities

Develop Data Science Capability to grow business (80%)

Deploy Machine Learning to uncover patterns in large scale data sets to identify customer behaviour correlations and convert in scalable growth opportunities

Enhance internal data mining assets (10%)

Identify new enhancement opportunities in data sources & machine learning toolsets to utilise for further business growth

Stakeholder Management (10%)

Identify and build relationships with key stakeholders.

Work effectively with peers and management team to achieve shared business objectives.

Stakeholder Management and Leadership

Key Stakeholders: Strategic Analytics Teams, ECM, Marketing, Risk, Technology, IVU

Identify and build relationships with key stakeholders.

Work effectively with peers and management team to achieve shared business objectives.

Decision-making and Problem Solving

We are looking for an individual who is passionate about & has real world experience of Machine Learning and Data Science methods, in particular the applications in various aspects of decision optimisation and have applied these techniques on consumer focused businesses or other mass data environment (Examples include consumer banking, credit cards, retail, travel, technology).

You should be able to demonstrate commercial acumen to explore business growth opportunity and will have to present your strategies simply and effectively to senior management and key stakeholders, and see them through to implementation.

Risk and Control Objective

Understand the appropriate Policies & Standards applicable to the role through reading the Code of Conduct and other training allocated. Where responsible for risks and controls ensure that these are appropriate and fit for purpose.

Measures:

- All mandatory training completed to deadline and understood within given timescales.
- Where applicable, all key risks identified, tracked, logged and managed as per the Risk Framework procedures
- Where applicable, all key controls to have identified owners, with audit trail of regular review and maintenance together with supporting records.
- Where applicable, all risk events (incidents) or control failures to be escalated, investigated, reported and fixed at root cause to prevent reoccurrence.

Ensure that all activities and duties are carried out in full compliance with regulatory requirements, Barclays Operational Risk Framework and internal Barclays Policies and Standards.

Person Specification

- Strong knowledge of some supervised and unsupervised machine learning methods, such as Regression methods (e.g. Ridge Regression, Lasso Regression, Logistic Regression), Ensemble and boosted classifiers (e.g. Random Forests, XGBoost), Support Vector Machines, Neural Networks, Clustering methods (e.g. k-Means, DBScan), Natural Language Processing among others. A firm understanding of the underlying mathematics is needed to adapt modelling techniques to fit the problem space.
- Solid hands on programming experience with at least one of the standard data science tools, Python (Pandas, Scikit-Learn etc), R, Scala/Spark
- Experience building analytical pipelines e.g. to deploy machine learning models into production
- Experience with the Hadoop ecosystem, ideally CDH/Impala/Hive and/or traditional database systems, including advanced SQL querying
- Expertise of using classical statistical methods (such as Linear Regression, Decision Trees) in a commercial environment.
- Experience in a mass data environment with analytics to drive revenue growth or manage risk/costs in the business
- Ability to consolidate and analyse complex information in order to identify creative new ways of working and innovative solutions to problems
- Ability to package ideas and communicate analytical results in a logical, understandable and compelling way for both technical and non-technical audiences
- Bachelors Degree in a quantitative field (Mathematics, Statistics, Machine Learning, Computer Science, Engineering etc.) (Ph.D. preferred)

Diversity & Inclusion

We are an equal opportunity employer and we are opposed to discrimination on any grounds.

Role Profile Attestation

The content of this role profile is relevant for the role in question.

Name of reviewer: Ankur Gaur

Role of reviewer: Customer Management Director, Strategic Analytics, UK Cards

Date of review: 09/05/2018

Purpose and Values

Barclays has a single cross-business Purpose for Barclays and five core Values which underpin it.

Our Purpose is helping people achieve their ambitions in the right way. Put simply this is the answer to the question 'What is Barclays for?' and it should guide our every action as employees.

Respect

We respect and value those we work with, and the contribution that they make.



Integrity

We act fairly, ethically and openly in all we do.

Service

We put our clients and customers at the centre of what we do.

Excellence

We use our energy, skills and resources to deliver the best, sustainable results.

Stewardship

We are passionate about leaving things better than we found them.