About the Organisation
HSBC is one of the world’s leading international banks. With a network that covers 64 countries and territories, HSBC offers you opportunities to develop your career in established and faster-growing markets. We serve our customers through our global businesses, which are supported by our operational and functional teams.

HSBC UK is transforming from a data-rich to data-driven organisation; the Data and Analytics department are central to this transformation. The department delivers data analytics, machine learning (ML) and management information which are used to measure, automate and improve the performance of the business. The department is at the centre of customer intelligence and marketing; using ML to communicate the right message, to the right customer, at the right time.

The team is leading the adoption of cloud and open-source technologies using ML in innovative ways to automate processes, delivering efficiencies in banking operations and improving customer engagement.

Role Description and Responsibilities
This is an exciting opportunity to work with our team on a machine learning project in the financial services industry. The Data Scientist intern will work as part of an agile scrum team and contribute to the delivery of end-to-end outcomes for real business applications.

In particular, the Data Scientist intern will focus on applications involving unstructured data such as images and written or spoken language. This will involve in-house, public and/or synthetic data sources. The Data Scientist intern will research state-of-the-art techniques and packages for handling unstructured data, explore the use of synthetic unstructured data for model training, develop effective approaches for improving and tuning existing models and/or build new challenger models.

We will provide induction training and continuous support throughout the placement, so the intern will learn how to work within our cloud computing environment.

We would also expect the intern to participate actively in our Data Science community, e.g. by giving a presentation about a topic related to their research or an aspect of Data Science.

Expected Outcomes
Our objective for this placement is a measurable improvement of the performance of existing models and/or the creation of successful challenger models. This is part of a real business use case and the outcomes achieved in this placement will support our drive towards further
automation and corresponding cost savings and quality improvements.

The intern will regularly discuss their progress with their scrum team. They will have the opportunity to present their results to business stakeholders and to our wider Data Science community.

**Supervision and Mentorship**

The Data Scientist intern will work in an agile scrum team alongside Data Engineers, Analysts, ML Engineers and other Data Scientists.

The intern will be supervised by the Lead Data Scientist. The intern will also be a member of our Data Science community to provide them with a network of colleagues for support and learning.

**Person Specification**

The ideal intern will have a passion for Data Science and for using data and machine learning to solve real-world problems.

Essential skills:
- Practical experience with programming languages, e.g. Python (preferred), R or Scala
- Experience with building computer models and applying machine learning techniques
- Strong verbal and written communication skills

Desirable skills, not essential, but any of the following would be beneficial:
- Experience with Structured Query Language (SQL)
- Knowledge of deep learning and neural network models
- Experience of using specialist ML libraries, e.g. sci-kit learn or tensorflow
- Experience of handling unstructured data, such as processing language, images or sound
- Experience with cloud computing, e.g. AWS, GCP or Azure
- Specialist knowledge in a field of data science from work experience or academic research

**Internship Logistics**

Salary: £30k pa. (£15K for the duration of the 6-month placement)

Internship length: 6 months, full time (we regret that we are unable to consider part time applications or international / student visa application).

Location: Hybrid working, i.e. flexibility to work remotely and via one of our office locations in Birmingham, Leeds, London or Sheffield.

*The successful candidate will need to complete a background check conducted by the talent solutions service provider Tapfin. The successful candidate will be hired by Tapfin to work for HSBC.*