**Write your thoughts over the role of QA in AI dominant tech market.**

A user accesses a webpage and spend hours on it- whether browsing, watching movies or playing games. They want a very straight forward and easy to use interface, where they can have an easy navigation system for ease of their mind. Behind all the proper functioning of any application, QA play a vital role. They sit down in front of a feature, start reading the documentation and list down the ideas and features they think are important. They spend a good chunk of time on the document and then start manually verifying its functionalities. They check for proper functioning of every individual feature and ensure the data is as per the requirement. They bridge the communication gap between stake holders and the development team. While achieving a 100 percent is not ideal, they help in managing the expectation and communicate the limitations. With thousands of data being processed every day, a large-scale data is set to tackle for efficiency, scalability and performance in the real-world scenario. QA ensure the continuous accuracy and reliability of the new data with quality control. The constant upgrade in the tech market is a challenge they are always up for. They craft scenarios to measure algorithm performance, observe data behavior, and ensure accurate and consistent predictive results from the AI.

The responsibility of a QA is to analyze the quality of the software. Their role doesn’t end with the initial test. They repeat the test process thoroughly as per the project and their resources. In this sense, they are a core pillar in the AI dominant tech market. They tackle with challenges that comes with AI whether it be the algorithm complexity or the decision transparency. They help the use ease into using complex applications. The major challenges that a QA faces in today’s tech market can be enlisted as below.

1. Data Integrity

With millions of data constantly being upgraded every day, it has been a challenge to keep up with the data accuracy, consistency and completeness. QA performs integrity check to make sure the data are not outdated. They also work on having a benchmark with continuous shift in real world data by constantly learning and adapting.

1. Model robustness

QA make sure that the application is accurate and reliable over time and with changing data. Any application must generalize well across diverse inputs while avoiding overfitting. Foe this, the QA teams validate applications by extensively testing datasets and covering edge cases and adversarial inputs. They also ensure decision-making transparency and perform stress testing & adversarial testing to identify vulnerabilities.

1. System Quality

A feature should have proper verification and validation. If not, the functioning of the application is affected. QA works with a goal of ensuring the quality of features are at acceptable level by avoiding any conflicts and their effects.

1. Process Agility

It is very important to upgrade with the world. QA help in constantly being in adaptive relationship with dynamic changing tech world. They help to rapidly adapt, iterate and response to the changes. It is an essential step in ensuring model accuracy and addressing ethical and regulatory concerns.

1. Customer Expectations

QA act as a communication bridge between the stake holders and the development team. They help in managing the customer expectations by providing them with assurance about the proper functioning of the application. They also help in communication between cross functions teams to ensure the quality of the application is as per the requirement.

In conclusion, the responsibilities of a QA do not end with the initial test. They are a constant part of the entire workflow. In the lifecycle, QA work on **Data Validation, Model Validation, Deployment Testing and Post-Deployment Monitoring,** making it a possibility for constant adaption to ever changing upgrades and updates in AI dominant tech world.