

# CUTTING EDGE TECHNOLOGY IN FINANCE: BIG DATA, ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING

## COURSE OVERVIEW

This 1-day course has been developed for Bankers to give them an overview of key technology developments within “FinTech” such as big data, artificial intelligence and machine learning. This will give them a better understanding of on-going developments & innovation in the banking industry, and enable them to hold higher level conversations with clients and build better relationships.

“FinTech” has been stunning by the speed of its technological innovation. This has accelerated rapidly in the last 2 years with the rise of big data, artificial intelligence and machine learning. To put it into perspective, “90% of the world’s data across history has been generated over the last two years.” (Christopher Cole, Volatility and the Alchemy of Finance).

Big data is the term used to refer to data sets that are so large and complex that traditional data processing application software is inadequate to deal with them. It also refers to the analysis of this data (predictive analysis and user behaviour analysis) vital in decision making for business executives, governments and scientists alike.

Artificial intelligence (AI) is the intelligence displayed by a machine whereby it can perceive its environment and take actions that maximize its chances at success at some goal. It has been used in High Frequency Trading since the 1980’s but has really come to prominence with the rise of ‘FinTech’ in recent years.

Machine Learning is the field of computer science whereby the computer can learn without being explicitly programmed. It overlaps with computational statistics, mathematical optimization, data analytics and data mining (unsupervised learning).

This programme defines and discusses these technological advancements, and highlights their current uses in the banking and financial services industries

such as; risk management, portfolio optimization, high frequency & low latency trading, fraud detection, data analytics, forecasting & modelling, chat agents, etc.

The course will help prepare participants for their three most common questions; “How is FinTech going to impact what we do?”, “What should we do to prepare for the disruption from FinTech companies?” and “how will FinTech technology innovations benefit my firm?”

**The programme can be adapted for specific audiences**

## LEARNING OBJECTIVE

- Provide a clear understanding of the technology, size, and architecture of Big Data.
- Understand how Big Data is being used and applications in a Banking Context
- Provide a clear understanding of artificial intelligence and the technology behind it
- Understand how it is being used in Financial Services now and what does the future hold
- Provide a clear understanding of machine learning and the technology behind it
- Highlights the current uses in the banking and financial services industries such as risk management, portfolio optimization, high frequency & low latency trading, fraud detection, data analytics, forecasting & modelling, chat agents

## TARGET AUDIENCE

- Banking, Financial Services, and FinTech Professionals

## COURSE METHODOLOGY

Instructor led facilitation using video based learning, case study discussions, quiz, game and exercises.



**DURATION**  
(1 DAY)

