Machine Learning is a branch of artificial intelligence and computer science which focuses on the use of data and algorithms to imitate the way humans learn, gradually improving its accuracy.
Machine learning is an important component of data science. Using statistical methods, algorithms are trained to make predictions, uncovering key insights within data mining projects. These insights subsequently drive decision making within applications and businesses ideally impacting key growth metrics. As big data continues to expand and grow, the market demand for data scientists will increase requiring them to assists in the identification of the most relevant business questions and subsequently the data to answer them.
Since deep learning and machine learning tend to be used interchangably, its worth noting the nuances between the two.
Machine Learning, deep learning, and neural networks is a sub-field of deep learning.
However, deep learning is a sub-field of machine learning and neural networks is a sub-field of deep learning. The way in which deep learning and machine learning differ is in how each algorithm learns.

Deep Learning automates much of the feature feature extraction piece of the process, eliminating some of the manual human int intervention required and enabling the use of larger datasets. Deep machine learning can leverage labelled datasets, also known as supervised learning, to inform its algorithm, but it doesn't necessarily require a labelled dataset. It can ingest unstructured data in its raw form, it can automatically determine the set of features which distinguish different categories of data from one another. Unlike machine learning, it doesn't require human intervention to process data allowing us to scale machine learning in more interesting ways. Deep learning and neural networks are primarily credited with accelerating progress in computer vision, natural language processing and speech recognition.