Deep Learning for Enterprise Applications

Description:

Deep learning has emerged as one of the most significant enabling technologies in the world of artificial intelligence (AI). As a branch of the broader discipline of machine learning, deep learning models a biological system by creating a simulated software network of mathematical neurons. The function of the simulated neural net corresponds, very roughly, to the function of neurons in human and other animal brains, and the model builds a system that is capable of adapting itself to new data. While the concept for biologically-inspired computer programs dates back to at least 1950, and technology development in the machine learning space has experienced several ups and downs during the ensuing decades, rapid advances in the field are now being spurred by three key market trends: (1) vast increases in the amount of data, (2) significant improvements in machine learning algorithms, and (3) exponential advances in hardware speed.

Deep learning is already proving its value in sectors like advertising services, investments, and media. Thanks to the growth of areas like electronic medical records (EMRs), wearable devices, and the Internet of Things (IoT), deep learning will have an increasingly greater impact on sectors such as medicine, manufacturing, consumer finance, networking and data storage, and oil and gas. It also has the potential to impact more traditional industries, and some that have not seen much change in decades, such as automotive, agriculture, education, law, philanthropies, and retail. The author forecasts that annual software revenue for enterprise applications of deep learning will increase from $109 million in 2015 to $10.4 billion in 2024. The total market driven by deep learning software investments, including support services and IT hardware investments in addition to direct software spending, will surpass $100 billion in annual revenue during the same timeframe.

This report examines the market for deep learning across 15 industry sectors, including 10-year revenue forecasts for the period from 2015 through 2024. The report forecasts software revenue, services revenue, and hardware sales, and provides segmentation by delivery method (cloud, device, and data center) as well as world region. The report also includes profiles of 20 key industry players in the global deep learning market.

Key Questions Addressed:

- What is the difference between machine learning and deep learning?
- How is deep learning being used today in the enterprise environment?
- What is the future potential of deep learning in various industry sectors?
- What will be the mix of delivery methods for deep learning - cloud vs. device vs. data center?
- What is the competitive landscape of deep learning technology companies, and which are best-positioned to succeed in the market?
- Which enterprise applications will see the greatest benefits from deep learning?

Who Needs this Report?

- Enterprise software companies
- Semiconductor and component manufacturers
- Service providers and systems integrators
- End-user organizations deploying deep learning systems
- Industry associations
- Government agencies
- Investor community

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