

Musk, a tech entrepreneur, says artificial intelligence (AI) is a bigger threat to humanity than nuclear weapons. "The last layer would detect combinations of parts that form objects: a car, an airplane, a person, a dog, etc. The depth of the network, with its multiple layers, allows it to recognize complex patterns in this hierarchical fashion." So Facebook AI experts Yann LeCun and Joaquin Quinero Candela have set about simplifying this complex field of computer science in a series of educational videos and blog posts. Despite growing anxiety over automation eliminating jobs, LeCun and Candela believe that AI will create new roles for humans in manufacturing, training, sales, maintenance, and management of intelligent robots. And although we may not be aware of it, we already use it in our Facebook news feeds when we talk to Siri on our iPhones or ask our Alexa-enabled speakers to play a track. "AI of this happens at blinding speed through a set of coded programs designed to run neural networks with millions of units and billions of connections," write LeCun and Candela. Regardless of whether you agree with Musk's or Zuckerberg's argument, what is clear is that AI is reshaping the world we live in. It's leading to improvements in medicine and self-driving cars, shaking up businesses from manufacturing to marketing. "But we've already seen how it can make scientific discoveries that seem like magic and help us do everyday things like identify objects in photos, recognize speech, drive a car, or translate an online post into dozens of languages." These neural networks can learn to recognize patterns, translate languages, do simple logical reasoning, create images, and even come up with ideas. "Not magic, just code" "Artificial intelligence is not magic," write LeCun, head of Facebook's AI research, and Candela, Facebook's Director of Applied Machine Learning, in their blog. Deep learning is a type of machine learning that structures neural networks into multiple processing layers. How does it do this?