

THE NOBEL PRIZE

Geoffrey Hinton

Facts

-- Facts



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Geoffrey Hinton

Nobel Prize in Physics 2024

Born: 6 December 1947, London, United Kingdom

Affiliation at the time of the award: University of Toronto, Toronto, Canada

Prize motivation: “for foundational discoveries and inventions that enable machine learning with artificial neural networks”

Prize share: 1/2

Work

When we talk about artificial intelligence, we often mean machine learning using artificial neural networks. This technology was originally inspired by the structure of the brain. In an artificial neural network, the brain’s neurons are represented by nodes that have different values. In 1983–1985, Geoffrey Hinton used tools from statistical physics to create the Boltzmann machine, which can learn to recognise characteristic elements in a set of data. The invention became significant, for example, for classifying and creating images.

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2025