Research[[edit](https://en.wikipedia.org/w/index.php?title=Andrew_Ng&action=edit&section=5&editintro=Template:BLP_editintro" \o "Edit section: Research)]

Ng researches primarily in [machine learning](https://en.wikipedia.org/wiki/Machine_learning), [deep learning](https://en.wikipedia.org/wiki/Deep_learning), [machine perception](https://en.wikipedia.org/wiki/Machine_perception), [computer vision](https://en.wikipedia.org/wiki/Computer_vision), and [natural language processing](https://en.wikipedia.org/wiki/Natural_language_processing); and is one of the world's most famous and influential computer scientists.[[20]](https://en.wikipedia.org/wiki/Andrew_Ng#cite_note-20)

His early work includes the Stanford Autonomous Helicopter project, which developed one of the most capable autonomous helicopters in the world.[[21]](https://en.wikipedia.org/wiki/Andrew_Ng#cite_note-21)[[22]](https://en.wikipedia.org/wiki/Andrew_Ng#cite_note-22) He also worked on the STAIR (STanford Artificial Intelligence Robot) project,[[23]](https://en.wikipedia.org/wiki/Andrew_Ng#cite_note-23) which resulted in [ROS](https://en.wikipedia.org/wiki/ROS_(Robot_Operating_System)), a widely used [open-source](https://en.wikipedia.org/wiki/Open_source_software) [robotics](https://en.wikipedia.org/wiki/Robotics) software platform. He is also one of the founding team members for the Stanford WordNet project, which uses machine learning to expand the [Princeton](https://en.wikipedia.org/wiki/Princeton_University) [WordNet](https://en.wikipedia.org/wiki/WordNet" \o "WordNet) database created by [Christiane Fellbaum](https://en.wikipedia.org/wiki/Christiane_Fellbaum" \o "Christiane Fellbaum).[[7]](https://en.wikipedia.org/wiki/Andrew_Ng#cite_note-:0-7)[[24]](https://en.wikipedia.org/wiki/Andrew_Ng#cite_note-24)

In 2011, Ng founded the [Google Brain](https://en.wikipedia.org/wiki/Google_Brain) project at [Google](https://en.wikipedia.org/wiki/Google), which developed large-scale artificial [neural networks](https://en.wikipedia.org/wiki/Neural_network) using Google's distributed computer infrastructure.[[25]](https://en.wikipedia.org/wiki/Andrew_Ng#cite_note-25) Among its notable results was a neural network trained using [deep learning](https://en.wikipedia.org/wiki/Deep_learning) algorithms on 16,000 [CPU cores](https://en.wikipedia.org/wiki/CPU_core), which learned to recognize cats after watching only [YouTube](https://en.wikipedia.org/wiki/YouTube) videos, and without ever having been told what a "cat" is.[[26]](https://en.wikipedia.org/wiki/Andrew_Ng#cite_note-26)[[27]](https://en.wikipedia.org/wiki/Andrew_Ng#cite_note-27) The project's technology is also currently used in the [Android Operating System](https://en.wikipedia.org/wiki/Android_(operating_system))'s speech recognition system.[[28]](https://en.wikipedia.org/wiki/Andrew_Ng#cite_note-28)

He together with [David M. Blei](https://en.wikipedia.org/wiki/David_M._Blei) and [Michael I. Jordan](https://en.wikipedia.org/wiki/Michael_I._Jordan), coauthored the influential paper that introduced [Latent Dirichlet allocation](https://en.wikipedia.org/wiki/Latent_Dirichlet_allocation).[[29]](https://en.wikipedia.org/wiki/Andrew_Ng#cite_note-29)