You can now download the source code that sparked the AI boom

On Thursday, Google and the Computer History Museum (CHM) jointly released the source code for AlexNet, the convolutional neural network (CNN) that many credit with transforming the AI field in 2012 by proving that "deep learning" could achieve things conventional AI techniques could not.

Deep learning, which uses multi-layered neural networks that can learn hierarchical representations directly from data without explicit programming, represented a significant departure from many earlier traditional AI approaches that relied on hand-crafted rules and features.

The Python code, now available on CHM's GitHub page as open source software, offers AI enthusiasts and researchers a glimpse into a key moment of computing history. AlexNet served as a watershed moment in AI because it could accurately identify objects in photographs with unprecedented accuracy—correctly classifying images into one of 1,000 categories, like "strawberry," "school bus," or "golden retriever" with significantly fewer errors than previous systems.

Like viewing original ENIAC circuitry or Alan Turing's sketches of the Turing Machine, examining the AlexNet code may provide future historians insight into how a single, clearly documented breakthrough helped catalyze a technology that has reshaped our world. While deep learning has enabled advances in health care, scientific research, and accessibility tools,

it has also facilitated concerning developments like deepfakes, automated surveillance, and the potential for widespread job displacement.

But in 2012, those negative consequences still felt like far-off sci-fi dreams to many. Instead, experts were simply amazed that a computer could finally recognize images with near-human accuracy.

Teaching computers to see

As the CHM explains in its detailed blog post, AlexNet originated from the work of University of Toronto graduate students Alex Krizhevsky and Ilya Sutskever, along with their advisor, Geoffrey Hinton. The project proved that deep learning could outperform traditional computer vision methods.

The neural network won the 2012 ImageNet competition by recognizing objects in photos far better than any previous method. Computer vision veteran Yann LeCun, who attended the presentation in Florence, Italy, immediately recognized its importance for the field, reportedly standing up after the presentation and calling AlexNet “an unequivocal turning point in the history of computer vision.” As Ars detailed in November, AlexNet marked the convergence of three critical technologies that would define modern AI.

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