A deep learning approach to single-digit addition

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Abstract

Deep learning is a powerful tool for solving complex problems. Recent advances in the field have made possible the solving of even those problems that are already solved. Computational neural networks are designed to operate as the human brain does. This begs the question, what *does* the brain do? My research team, composed exclusively of engineers, came to the unanimous conclusion that the human brain primarily performs mathematics. An mTurk study (n=7,430) revealed that the most common mathematical operation is 'addition'; a combinatorial process by which value scores are extracted from pictorial, auditory, or tactile stimuli and fused into a single value, or 'product', that is as great as the sum of its parts. In this paper, I present the framework and evaluation of a deep learning technique by which the addition operation is performed on single-digit numerals.

Keywords: *deep learning, artificial intelligence, cognitive science, mathematics*

Introduction

Deep learning is so effective that it will soon make every other scientific field obsolete. Researchers have demonstrated the ability of sophisticated DL algorithms to perform complex tasks with astounding precision. Park & Hirsch (2019) trained a model to differentiate between different versions of Linux OS by returning unique error codes whenever the authors ran the code on their personal computers. Bell (2021) employed a Convolutional Neural Network (CNN) that leveraged a powerful GPU to successfully heat his apartment throughout the winter of 2020. Ephraim (2022) developed CamGAN; a generative adversarial network that produces realistic photos not from random numbers, but from color and light data collected from the environment.

In this paper, I aim to bury these authors' memories with the resplendence of my algorithm; making even their own families forget they existed. Also in this paper, I will begin many sentences with the words "In this paper," despite the overt redundancy of doing so. Finally, I will also demonstrate a deep learning model that is capable of performing single-digit addition.

Methods

5 undergraduate students at the University of Computing were told they would not receive passing grades unless they built the author a CNN. The students produced a python script consisting of 240 if/else statements that called undefined global variables, earning themselves a B. The author then trained the model by feeding it two (2) random single-digit numerals and providing feedback after each guess.

Results

Astonishingly, only 81 training rounds were needed before the model achieved 100% accuracy. To optimize the model, 5 more undergraduates were then extorted into deleting the 159 if/else statements that were left unused.

Discussion

In this paper, I present the only CNN capable only of single-digit addition.

The model will be available for purchase pending legal action taken against the author by Texas Instruments[2].

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