

Scope [Javascript Version]

I wrote the first version of Scope in C, basically for speed (lots of layers). I wanted to see the evolving model graphed like the typical function $f : \mathbb{R} \rightarrow \mathbb{R}$. Eventually I added an illustration of evolving network itself, graphing magnitude as thickness and sign as color. Every detail (such as the activations of individual neurons) could be modified “live.”

All this detail is too messy for the browser, so I wrote this browser version to offer the basic experience. While I have used dual numbers in some programs to train models, this version of Scope uses classic back-propagation. Some versions featured 3 functions learning on the same graph, and it's not hard to add them back in if one is interested.