Sigmoid function in the neuralnet package in R

I can't seem to find any documentation of how to apply a sigmoid function in the neuralnet package, I tried:

```
neuralnet(...,act.fct="sigmoid")
```

However this returned;

```
Error: ''act.fct' is not known
```

r   neural-network   sigmoid

asked 15 mins ago

John Meighan
4   3

1 Answer

You are looking for the "logistic" for that package.

```
neuralnet(..., act.fct = "logistic")
```

That said though, if you have a function that isn't in there (and there aren't many in that package) you can pass the function yourself.

```
library(neuralnet)

data(infert)

set.seed(123)
net.infert <- neuralnet(case~parity+induced+spontaneous, infert,
                        err.fct="ce", linear.output=FALSE, likelihood=TRUE)
```

```r
sigmoid = function(x) {
  1 / (1 + exp(-x))
}

set.seed(123)
net.infert2 <- neuralnet(case~parity+induced+spontaneous, infert,
                         err.fct="ce", linear.output=FALSE, likelihood=TRUE,
                         act.fct = sigmoid)

all.equal(net.infert$weights, net.infert2$weights)
[1] TRUE
```

answered 10 mins ago

cderman

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