

# Are DeepBigWideNets provably better than linear predictors?

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Under Review for OPT 2021

## Abstract

Recently, a transformer network (DeepBigWideNets-1) has been shown to outperform linear predictors, in the sense that all its local minima are at least as good as the best linear predictor. We take a step towards extending this result to deep DeepBigWideNets-2.

## 1. Main

Main text limited to 5 pages, excluding references and appendices.

### 1.1. Citations (`natbib` package)

Samuel [1] did preliminary studies in the field, their results were reproduced in [1, Theorem 1], see also [1] or [see also 1].

### 1.2. Algorithms (`algorithm2e` package)

For how to use this package, check out the `doc`. You are free to choose another package, add line numbering, etc.

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#### Algorithm 1: Example Algorithm

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**Data:** this text

**Result:** how to write algorithm with  $\text{\LaTeX}2\text{\epsilon}$  initialization;

```
while not at end of this document do
  read current;
  if understand then
    go to next section;
    current section becomes this one;
  else
    go back to the beginning of current section;
  end
end
```

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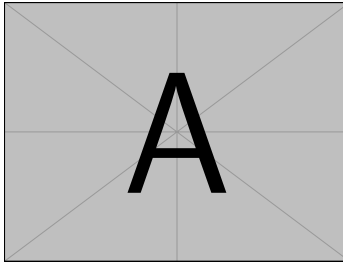


Figure 1: This is a figure.

## References

- [1] A. L. Samuel. Some studies in machine learning using the game of checkers. *IBM Journal of Research and Development*, 3(3):211–229, 1959.