Review of: "Nested Neural Networks: A Novel Approach to Flexible and Deep Learning Architectures"

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Potential competing interests: No potential competing interests to declare.

Dear Authors,

Thank you for sharing your work on the **Nested Neural Networks (NNN)** architecture. Your paper presents a highly creative and innovative approach, drawing from both mathematical and linguistic structures, to design a novel neural network framework. Below, I offer some constructive feedback to further enhance the clarity, rigor, and impact of your work.

Section: Experiments (5.3 Results)

The **results** presented indicate that NNNs outperform traditional models in accuracy and efficiency, which is a strong selling point of your work. However, the paper would benefit from more comprehensive reporting of the experimental setup. Specifically:

- What traditional models were used for comparison? Were these ResNets, DenseNets, or other models? Detailing the baselines helps establish the significance of the improvements.
- How was the performance in terms of **accuracy, memory usage, and computational complexity** quantified? Including a table of results comparing NNNs with other models would give readers a clear, quantifiable understanding of the gains.
- **Section: Conclusion (7 Conclusion)**

  Your suggestion to explore NNNs in other domains, such as **natural language processing (NLP)** and **reinforcement learning (RL)**, is exciting. However, it would strengthen the paper to briefly discuss potential adaptations for these fields. For instance:
- In NLP, how might NNNs be adapted to handle sequences of varying lengths?
- In RL, how would the nested architecture accommodate the dynamic nature of reward functions and policy optimization?
- Providing more details on **training time** and **computational overhead** in different environments (e.g., GPUs, TPUs) would be useful for practitioners looking to deploy NNNs in real-world applications.