

Propositions


accompanying the dissertation

On Color and Symmetries for Data Efficient Deep Learning

by

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1. Inductive biases provide a good alternative in the absence of sufficient data.
2. The necessity of exact equivariance is application dependent, as approximately equivariant architectures can outperform exact ones.
3. Data augmentations are and remain necessary to complement approximate equivariance.
4. Designing a toy experiment to demonstrate a theoretical deep learning problem is easier than showing that it also applies to the real world.
5. Reporting compute efficiency in terms of multiply-accumulate (MAC) operations is of no practical use.
6. The hype surrounding generative AI obscures practical limitations and challenges, and boosts unrealistic expectations.
7. Academic code writing is in need of a culture shift toward unit tests and code reviews to accelerate research.
8. Imposing restrictions on AI research forms a great danger to society.
9. Engaging in physical exercise is the single most productive thing to do when in a time crunch.
10. Review count should be an equally important scientific metric as citation count.

 Pertains to this dissertation.

These propositions are regarded as opposable and defensible,
and have been approved as such by the promotors
Dr. J.C. van Gemert and Prof. dr. M.J.T. Reinders.