

# Neural network growth through functional gradient descent

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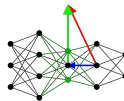
25 septembre 2025

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# A problematic trend in deep learning

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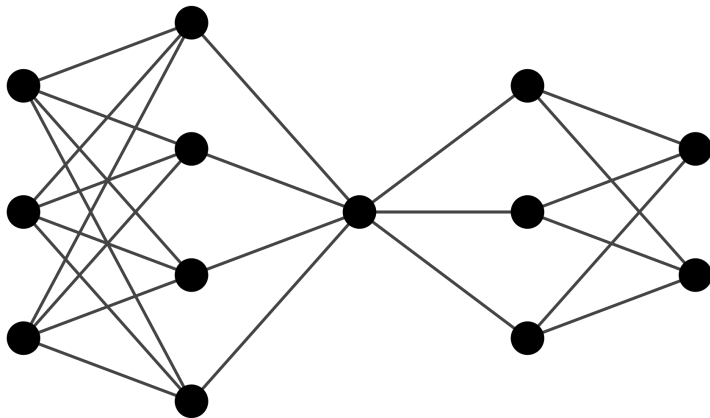


Start small, grow as needed.

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Goal : Avoid training a huge network : **make training cheaper.**

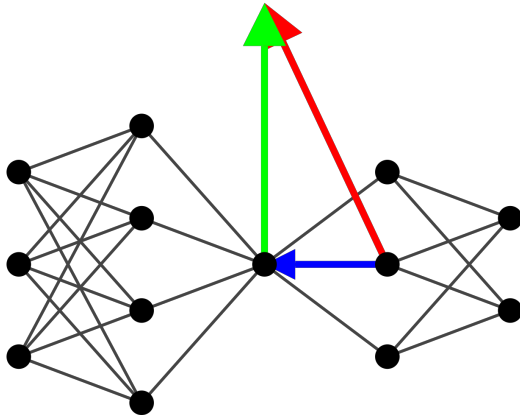


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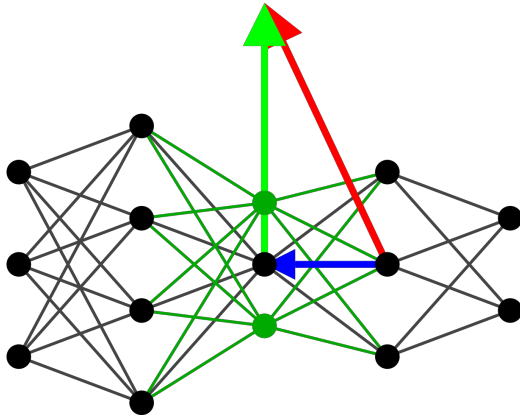


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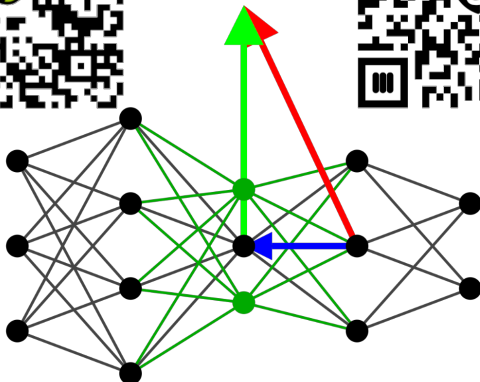
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To know how we do it, come to my poster!

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Verbockhaven, M., Rudkiewicz, T., Charpiat, G., and Chevallier, S. (2024).

Growing Tiny Networks : Spotting Expressivity Bottlenecks and Fixing Them Optimally.  
[Transactions on Machine Learning Research.](#)