

IS THERE A SEAHORSE EMOJI?

<https://x.com/v00000ogel/status/1964465679647887838>

if the model wants to output the word “hello”, it needs to construct a residual similar to the vector for the “hello” output token that the `lm_head` can turn into the hello token id. and if the model wants to output a seahorse emoji, it needs to construct a residual similar to the vector for the seahorse emoji output token(s) – which in theory could be any arbitrary value, but in practice is seahorse + emoji in word2vec style.

The only problem is the seahorse emoji doesn’t exist! So when this seahorse + emoji residual hits the `lm_head`, it does its dot product over all the vectors, and the sampler picks the closest token – a fish emoji.

For an even longer version see [\[here\]](#).

Bonus 1 – here is a my seahorse image taken at the Musée océanographique de Monaco last week from its wonderful collection. Let’s forget the virtual world and preserve the real one.



image taken at the Musée océanographique de Monaco (c) 2025.

Bonus 2 – the answer to a long-standing question: [The origin of male seahorses’ brood pouch!](#)

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