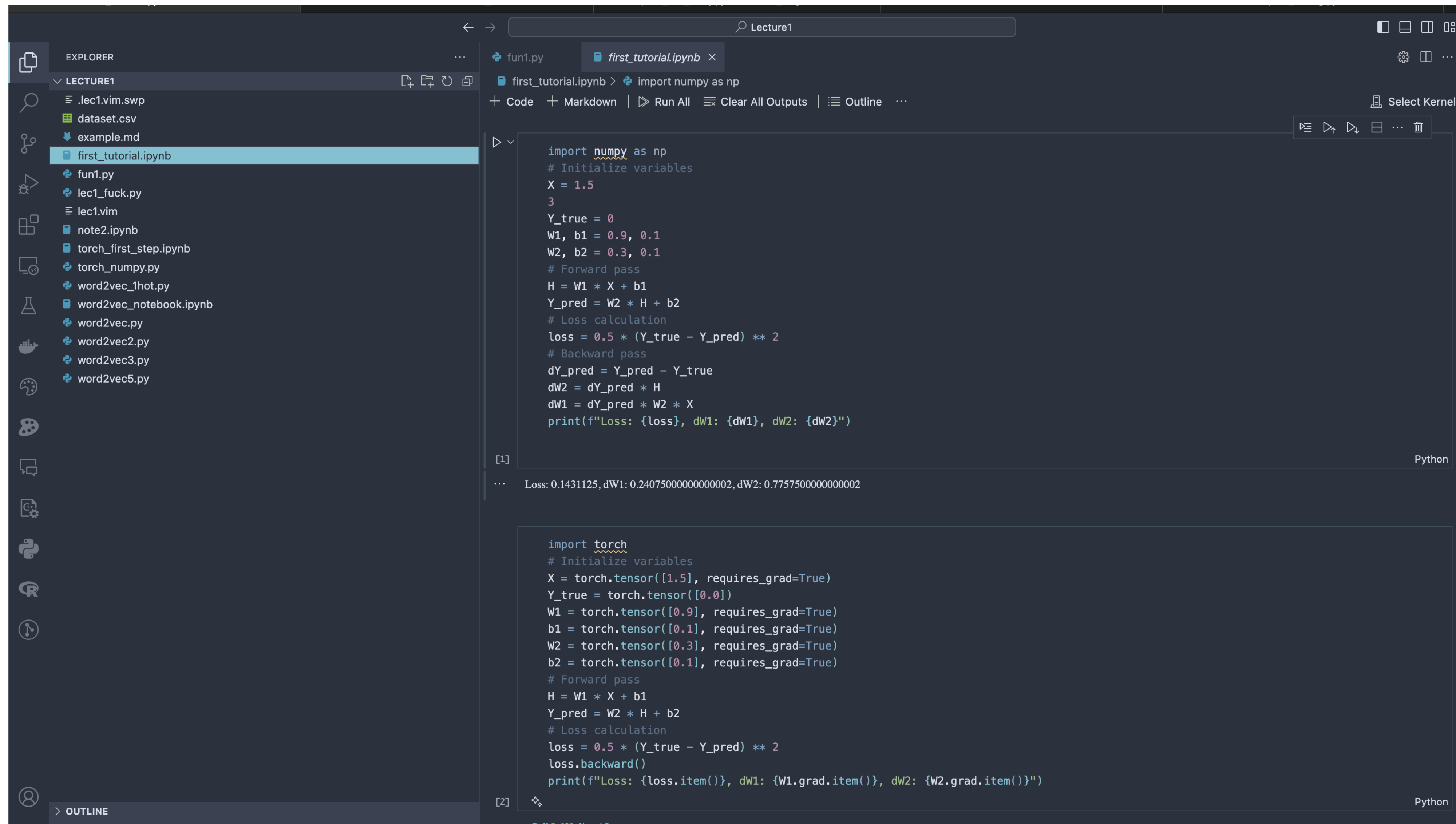


word2vec

Recommendations - I'm a VIM guy but VScode has nice functionality



Recommendations - Get Github Education

STUDENT

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<https://education.github.com/pack#offers>

Recommendations: be wary of hallucinations

<https://www.perplexity.ai/>

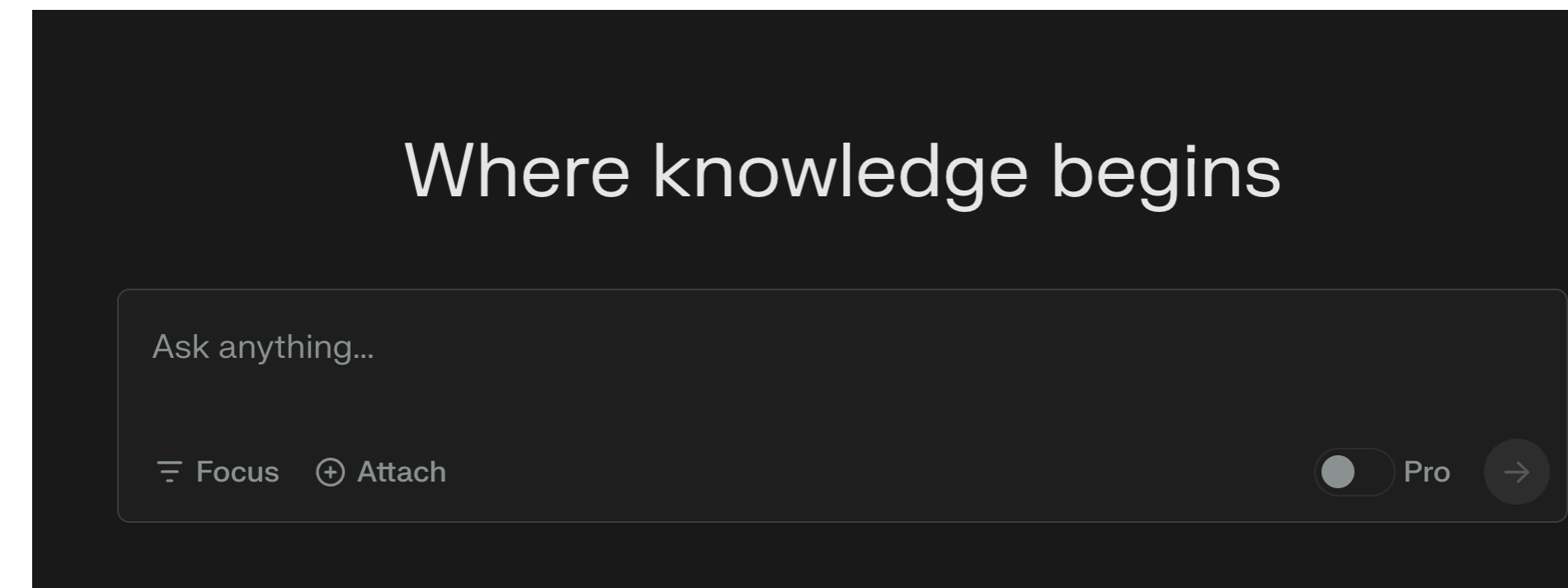
<https://chat.openai.com/>

<https://gemini.google.com/app>

<https://ollama.com/>

Etc...

Free tier models suffer from more severe hallucinations!



Get up and running with large language models.

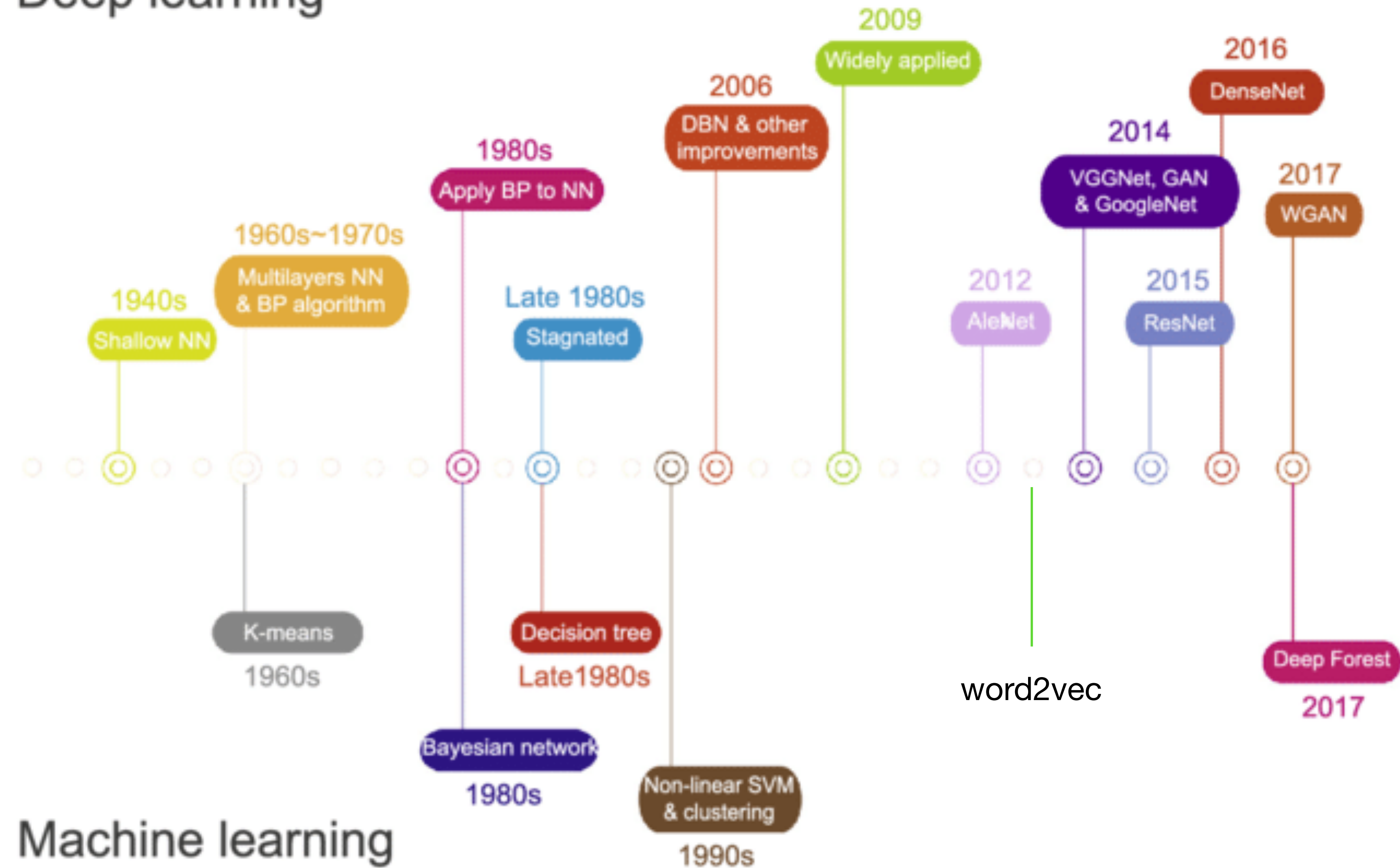
Run [Llama 2](#), [Code Llama](#), and other models.
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Available for macOS, Linux,
and Windows (preview)

Why a shallow network?

Deep learning



Efficient Estimation of Word Representations in Vector Space

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Abstract

We propose two novel model architectures for computing continuous vector representations of words from very large data sets. The quality of these representations is measured in a word similarity task, and the results are compared to the previously best performing techniques based on different types of neural networks. We observe large improvements in accuracy at much lower computational cost, i.e. it takes less than a day to learn high quality word vectors from a 1.6 billion words data set. Furthermore, we show that these vectors provide state-of-the-art performance on our test set for measuring syntactic and semantic word similarities.

“The main observation from the previous section was that most of the complexity is caused by the non-linear hidden layer in the model.”

Source: Mikolov, Tomas, et al. "Efficient estimation of word representations in vector space." *arXiv preprint arXiv:1301.3781* (2013).

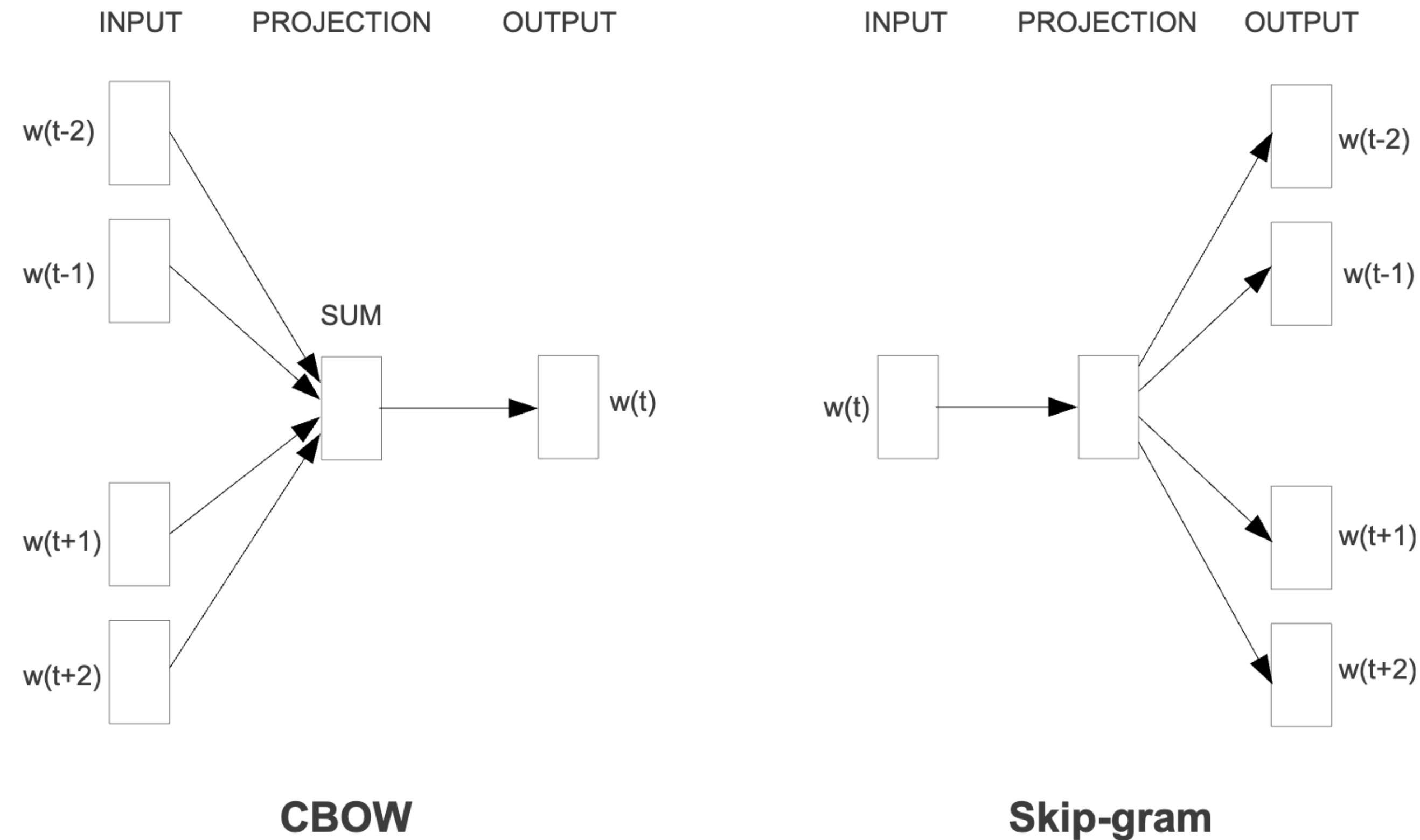


Figure 1: New model architectures. The CBOW architecture predicts the current word based on the context, and the Skip-gram predicts surrounding words given the current word.

Source: Mikolov, Tomas, et al. "Efficient estimation of word representations in vector space." *arXiv preprint arXiv:1301.3781* (2013).