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now •

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Do you want to fine-tune SLM and have no GPU/\$\$\$!

I've just published a detailed guide on fine-tuning open-source language models locally on Windows 11 without a GPU. Many people assume you need expensive hardware or cloud GPUs to adapt LLMs, but that's not always true. With smart techniques like LoRA (Low-Rank Adaptation), a parameter-efficient fine-tuning (PEFT) technique, you can run experiments even on a CPU machine.

 Read the full blog at [Medium](https://lnkd.in/d8H8xVcv) here: <https://lnkd.in/d8H8xVcv>

In the article, I cover:

- ✓ Why you might want to fine-tune locally (privacy, cost savings, customization)
- ✓ Challenges of training without a GPU
- ✓ Approaches like LoRA, QLoRA, and adapters
- ✓ Step-by-step setup on Windows 11 with Hugging Face tools
- ✓ Advantages & disadvantages of CPU-only fine-tuning

For resources, check out:

[Hugging Face](https://lnkd.in/dpNKfVxR) models: <https://lnkd.in/dpNKfVxR> LLM datasets on [Kaggle](https://lnkd.in/dNyEKVbF): <https://lnkd.in/dNyEKVbF> My results & code experiments [GitHub](https://lnkd.in/dZkWivmr) <https://lnkd.in/dZkWivmr>

If anyone wants to give it a try and contribute, GitHub repo issue: <https://lnkd.in/dERJvzS3>

I'd love to hear from you all: Has anyone here tried fine-tuning small language models (SLMs) on Windows with just CPU? What worked for you, and what challenges did you face?

[Nitika Sharma](#) [Kunal Jain](#) [Prashant Sahu](#) [Analytics Vidhya](#)

#LLM #FineTuning

