QLoRA: Efficient Finetuning of Quantized LLMs

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- Problem / objective
 - 효율적인 파인튜닝
- Contribution / Key idea
 - QLoRA
 - 4-bit NormalFloat (NF4)
 - Double quantization
 - Paged Optimizers

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QLoRA

Pretrained 4-bit quantized frozen LLM 을 gradient backpropagation 시키고, 그 gradient 를 Low-Rank Adapter (LoRA) 에만 적용.