

"Transformer 是一种深度学习模型，它采用自注意力机制（Self-Attention）来处理序列数据。它主要由编码器（Encoder）和解码器（Decoder）组成。BERT 和 GPT 都是基于 Transformer 的架构。

The screenshot shows the Neo4j browser interface. On the left, there's a sidebar with icons for nodes, relationships, and property keys. The main area is titled "Database information". It displays sections for "Nodes" (with a purple node icon), "Relationships" (with a grey relationship icon), and "Property keys" (with a gear icon). Below these are buttons for "data", "id", "name", "nodes", "relationships", "style", and "visualisation". To the right, there's a vertical sidebar with "neo4j\$" at the top and a "\$:WE" button below it.

The screenshot shows the DeepSeek AI training configuration interface. At the top, there are dropdown menus for "语言" (zh), "模型名称" (DeepSeek-LLM-7B-Chat), "模型路径" (deepseek-ai/deepseek-llm-7b-chat), and "模型下载源" (modelscope). Below these are fields for "微调方法" (lora) and "检查点路径" (lora). Further down are sections for "量化等级" (4), "量化方法" (bnb), "对话模板" (deepseek), "RoPE 插值方法" (none), and "加速方式" (auto). A "Train" tab is selected. In the middle, there's a "训练阶段" section with "DPO" and "data" dropdowns, and a "数据集" field with "dpo_zh_demo". A "预览数据集" button is next to it. At the bottom, there are sections for "学习率" (5e-5), "训练轮数" (3.0), "最大梯度范数" (1.0), "最大样本数" (100000), and "计算类型" (bf16). There are also sliders for "截断长度" (2048), "批处理大小" (2), "梯度累积" (8), "验证集比例" (0), and "学习率调节器" (cosine). A "其它参数设置" section is at the very bottom.

模型	类型
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GPT-4	生成式
BERT	判别式