

Rank Selection Guidelines

LoRA Rank Selection: $r=1\sim 64$
Balance between performance and efficiency

$r=4-8$

Simple Tasks

$r=16-32$

Most Tasks

$r=64+$

Complex Tasks

Task Complexity Recommendations

- **$r=4$:** Binary classification, sentiment analysis
- **$r=8$:** Named entity recognition, simple QA
- **$r=16$:** Medical report generation, diagnosis
- **$r=32$:** Clinical reasoning, multi-task learning
- **$r=64$:** Large-scale medical knowledge integration

Experimental Approach

- Start with $r=8$, measure validation performance
- Double rank if performance plateaus early
- Halve rank if overfitting occurs
- Monitor training loss vs validation gap