

## Overall performance:

| model name                  | accuracy | macro f1 | weighted f1 |
|-----------------------------|----------|----------|-------------|
| sft4_mix_without_adapter    | 0.7211   | 0.6979   | 0.7208      |
| sft5_bio_with_adapter       | 0.6956   | 0.6954   | 0.6954      |
| sft6_financial_with_adapter | 0.6818   | 0.6342   | 0.6820      |
| sft7_mix_with_adapter       | 0.6799   | 0.6506   | 0.6798      |

## Per-Model Configuration

### sft4\_mix\_without\_adapter

- Dataset: mixed (drug\_review + financial\_review)
- Domain prefix: yes
- LoRA used: no
- Class weights: yes
- Learning rate: 5e-5
- Batch size: 8
- Epochs: 3
- LoRA config: not used

### sft5\_bio\_with\_adapter

- Dataset: drug\_review (BIO)
- Domain prefix: no
- LoRA used: yes
- Class weights: yes
- Learning Rate: 1e-4
- Batch Size: 16
- Epochs: 10
- LoRA config: lora\_r=64, lora\_alpha=128, lora\_dropout=0.10

### sft6\_financial\_with\_adapter

- Dataset: financial\_news (FIN)
- Domain prefix: no
- LoRA used: yes
- Class weights: yes
- Learning Rate: 1e-4
- Batch Size: 16
- Epochs: 10
- LoRA config: lora\_r=64, lora\_alpha=128, lora\_dropout=0.10

### sft7\_mix\_with\_adapter

- Dataset: mixed (drug\_review + financial\_review)
- Domain prefix: yes
- LoRA used: yes
- Class weights: yes
- Learning Rate: 1e-4
- Batch Size: 16
- Epochs: 10
- LoRA config: lora\_r=64, lora\_alpha=128, lora\_dropout=0.10

## Per-domain performance

| model name               | dataset                  | domain prefix | domain | accuracy | macro f1 |
|--------------------------|--------------------------|---------------|--------|----------|----------|
| sft4_mix_without_adapter | mixed (drug + financial) | yes           | FIN    | 0.7169   | 0.6595   |
| sft4_mix_without_adapter | mixed (drug + financial) | yes           | BIO    | 0.7233   | 0.7230   |
| sft7_mix_with_adapter    | mixed (drug + financial) | yes           | FIN    | 0.6777   | 0.6161   |
| sft7_mix_with_adapter    | mixed (drug + financial) | yes           | BIO    | 0.6811   | 0.4536   |

## SFT7\_mix\_with\_adapter\_comparison

| config  | lora_r | lora_alpha | lora_dropout | overall accuracy | overall macro F1 | overall weighted | FIN accuracy | FIN macro | BIO accuracy | BIO macro |
|---------|--------|------------|--------------|------------------|------------------|------------------|--------------|-----------|--------------|-----------|
| config1 | 32     | 64         | 0.05         | 0.69080          | 0.65700          | 0.69030          | 0.66528      | 0.59905   | 0.70444      | 0.46962   |
| config2 | 64     | 128        | 0.05         | 0.68570          | 0.66360          | 0.68610          | 0.69214      | 0.62886   | 0.68222      | 0.45536   |
| config3 | 64     | 128        | 0.10         | 0.67990          | 0.65059          | 0.67980          | 0.67768      | 0.61613   | 0.68111      | 0.45357   |