# Experiment 6: Optimizer & Learning Rate Tuning

### Experiment Log – Optimizer & Learning Rate Tuning

**Dataset**: 800 images (4 classes, 200 each)  
**Model**: FruitCNN (3 conv layers, 1 FC layer)  
**Input size**: 100×100  
**Training device**: [MPS / CPU / GPU]

### Experiment Parameters

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Optimizer** | **Learning Rate** | **Batch Size** | **Scheduler Used** | **Epochs** |
| Adam | 0.001 | 32 | None | 15 |
|  |  |  |  |  |
|  |  |  |  |  |

### Metrics

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Optimizer** | **Learning Rate** | **Final Train Accuracy** | **Final Validation Accuracy** | **Notes** |
| Adam | 0.001 |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |

### Observations & Insights

### Final Recommendations for Optimizer & Learning Rate Tuning