

Mobile Health Apps

Mobile Health Applications

Optimization and deployment of medical AI models running on smartphones

Mobile Constraints



Memory

2-8 GB RAM
Model size limitation



Computation

Limited FLOPS
CPU/NPU utilization



Battery

Minimize power consumption
Long-term usage

Optimization Strategies

- ✓ Model size < 50MB (ideally < 20MB)
- ✓ INT8 quantization required
- ✓ Utilize MobileNet, EfficientNet architectures
- ✓ Convert to TensorFlow Lite, Core ML

Medical Use Cases

Skin Lesion Classification

Diabetic Retinopathy Screening

ECG Analysis