

- Does the model perform as accurately as expected on your smartphone? List a few methods to improve the model's accuracy.
 - Yes the model perform good
 - **Improve data quality** by increasing dataset size, balancing classes, and reducing noise.
 - **Optimize feature extraction** using proper DSP settings, relevant features, and data augmentation.
 - **Enhance model architecture** by tuning hyperparameters, using larger networks, or trying different ML models.
 - **Prevent overfitting** with dropout, L2 regularization, and cross-validation on diverse datasets.
 - **Optimize deployment** with model quantization, hardware acceleration, and efficient real-time processing.
- When building a model for resource-limited hardware, how do you balance fast inference times with acceptable model accuracy? What trade-offs did you encounter?
 - **Model quantization** reduces memory and speeds up inference but may slightly decrease accuracy.
 - **Use lightweight architectures** like MobileNet for efficiency, sacrificing some accuracy for speed.
 - **Reduce input features** to lower computation, but risk losing critical information.