Google's Teachable Machine is a powerful, no-code tool for creating machine learning directly in your browser. To get the best results, focus on data quality, variety and testing.

1. Data Gathering Tips (Quality & Quantity)

- Aim for ~30+ samples per class: More samples generally improve accuracy.
- Train with different angles, backgrounds, lighting conditions, and distances.
- Use the "Background" class: If you are using a webcam, create a class with no object/person in it (empty background). This helps the model know when nothing is happening.
- Keep it simple: Start with distinct classes (e.g., "Apple" vs. "Banana") before attempting to differentiate between similar objects.

2. Training and Refinement

- Use the Preview Pane to test immediately: Test your model after training to see how it handles live input.
- Try to break it: Test the model with tricky scenarios, such as changing lighting, or placing objects at the edge of the frame to find its limitations.
- Re-train with failure examples: If the model gets confused, take more samples of the scenarios that caused the confusion and add them to the relevant class.

3. Technical Tips

- Beware of over-fitting: If you have too few, identical images, the model might "memorize" them rather than learn the concept. Ensure variety.
- Manage Browser Load: Too many images can make the browser lag or crash. Keep datasets manageable.
- Export and Use: You can export models for projects (websites, apps) via TensorFlow.js, TensorFlow Lite, or TensorFlow.