

## LESSON 2

- \* Before you ~~train~~ <sup>clean data</sup> train your model
  - Find what things are difficult in your data
    - Contrast to people believe
    - Find data patterns.
  - You can then solve the problems using better images, better Aug, changing pad types → zeroes, squish etc.

\* Data Augmentation - Getting more images using same data  
 eg → Random Permutation on images of German & French Tanks

- various methods → Random Permutation, Crop, Transform, Recoloring

\* Confusion Matrix - Classification Interpretator

- Meaningful when labels are categories.

- Use `plt.imshow(losses())` to show <sup>loss</sup> 5 incorrectly identified images
  - includes images identified correctly with low probability
- ImageClassifierCleaner → ~~Adaptation~~ Manually choose the best ones.  
 (Ordered by probability)

\* Pulling it into production. [Gradio + Hugging Face]

- `loader.export()` → to export pickle files & `load_learner()`

(S) How long did it take to train your model

→ If your error rate improves/good enough / decreases.

TIP:  
 - Time  
 - Loss check  
 - Loss over  
 - Loss over time