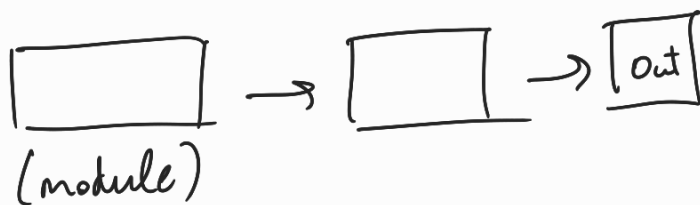


Pipeline: steps to take, planned by input & output

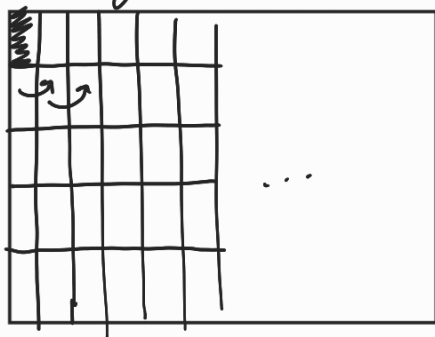
1. Text detection
2. Characters detection
3. Character classification
4. Spelling correction?
5. Auto translation?



Algorithm:

1. Get positive and negative data.

2. Sliding window:
move by step size
(stride)

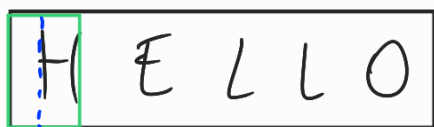


Stride size \nearrow Bigger: \uparrow accuracy, \uparrow cost
 \searrow Smaller: \downarrow accuracy, \downarrow cost

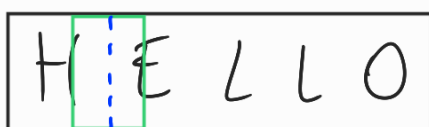
Becoming bigger each window

3. Apply to the output of the classifier an expansion operator, which only expands the positive regions.
Doing it as coloring KNNs.

4. Check character segmentation (detecting end of char)



\uparrow
no



\uparrow
yes

(...)

5. Classification

[How to improve?]

Take a ↓ bias algorithm and train it with lots of data.

↳ Increase features ↳ Increase hidden units in NNs

- Get many different fonts and put them in images.
- Distorsion of images (feature augmentation); usually does not help if it's just random.
- Crowd Source (Mech Turk)

Costs estimation:

- Make time estimations
- Isolate each pipeline's module and analyze it
- Check for the improvement of each