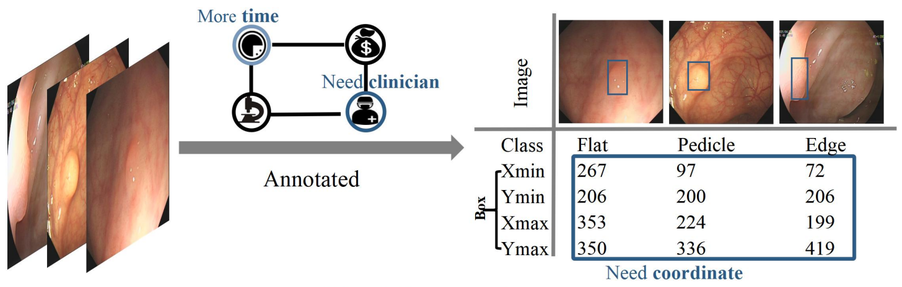
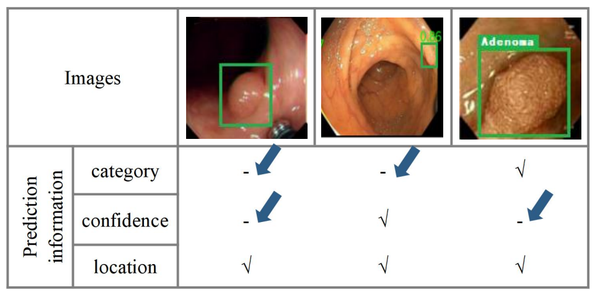
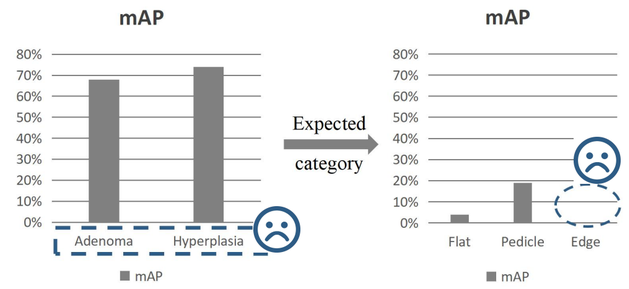
(a) Shortcomings of existing methods :



Hard Annotation



Imperfect prediction



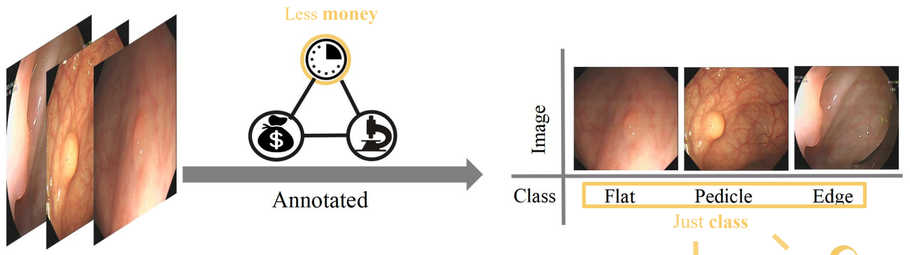
Inappropriate category evaluation

Advance 1

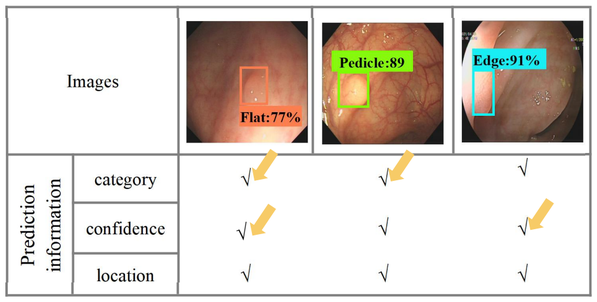
Advance 2

Advance 3

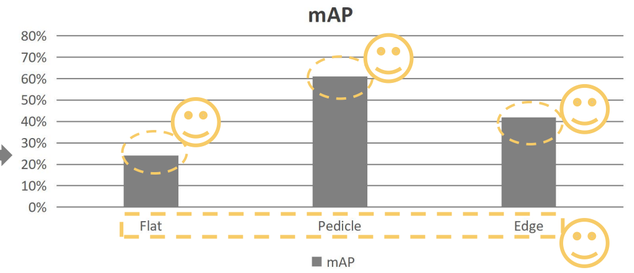
(b) Task of our work :



Easy Annotation



Perfect prediction



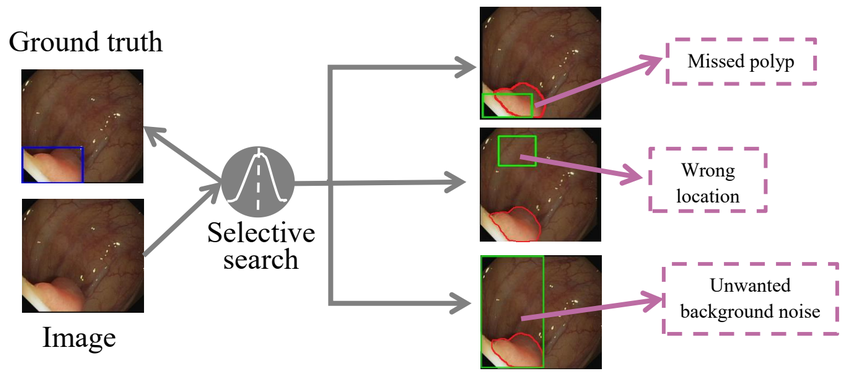
Appropriate category evaluation

Challenge 1

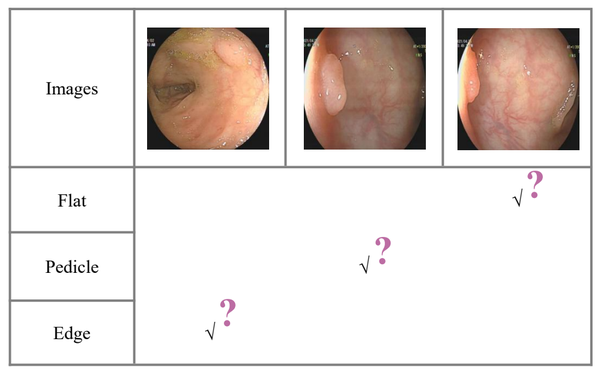
Challenge 2

Challenge 3

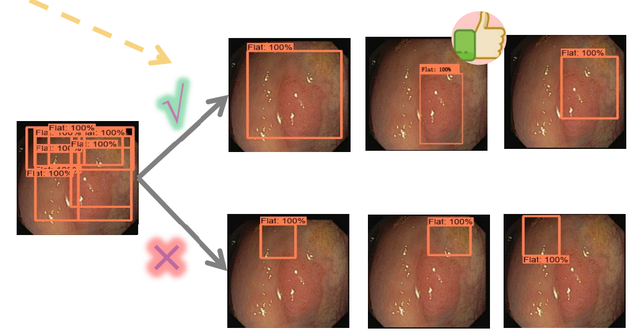
(c) Challenges of our task :



Inaccurate Proposals



Indistinguishable shape



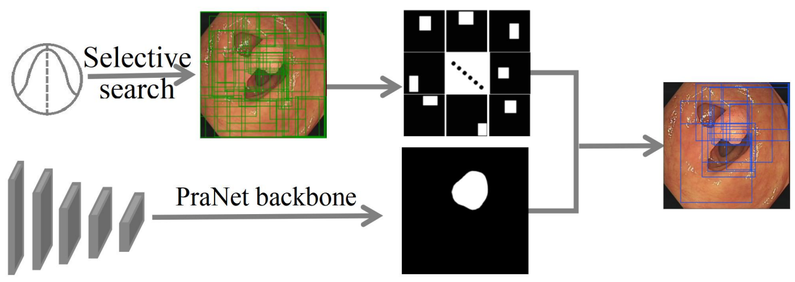
Unexpected false positives

Contribution 1

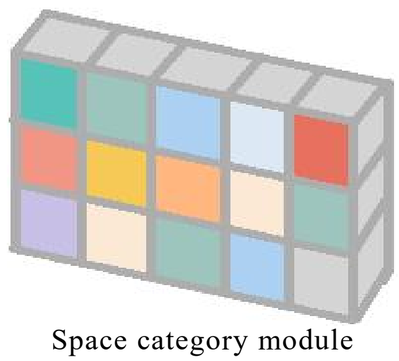
Contribution 2

Contribution 3

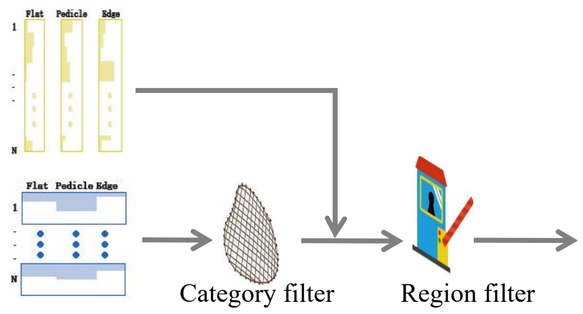
(d) Our contributions :



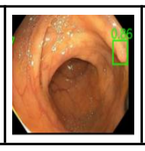
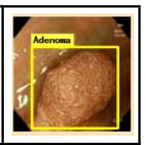
Cross-reference module

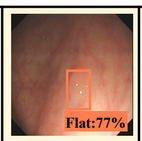
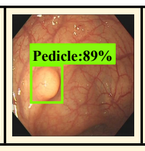
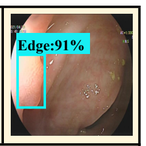


Space category module



Dual-threshold Postprocessing Strategy

Images				
Prediction information	category	×	×	√
	confidence	×	√	×
	location	√	√	√

Images				
Prediction information	category	√	√	√
	confidence	√	√	√
	location	√	√	√