Learning to Identify Local Flora with Human Feedback

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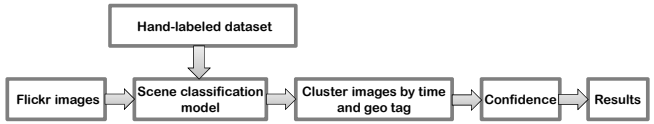
1. Overview



2. Method

Confidence score is measuring the ratio of log likelihood of being positive or not at each time and location.

$$P(scene \mid s^m, \overline{s}^n) = \frac{P(s^m, \overline{s}^n \mid scene)P(scene)}{P(s^m, \overline{s}^n)}$$

$$= \frac{\binom{m+n}{n} p^m (1-p)^n P(scene)}{P(s^m, \overline{s}^n)}$$

$$\frac{P(scene \mid s^m, \overline{s}^n)}{P(\overline{scene} \mid s^m, \overline{s}^n)} = \frac{P(scene)}{P(\overline{scene})} \left(\frac{p}{q}\right)^m \left(\frac{1-p}{1-q}\right)^n$$

At a place and time of interest,
m : the number of photos contains evidence of scene (event s)
n : the number of photos without evidence of scene (event $\overline{s}$)
p : $P(s \mid scene)$
q : $P(s \mid \overline{scene})$
$P(scene)$: the prior probability of snow.

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5. Ongoing and future work

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