
Impurity using info-gain

```
function imba = Impurity(left_label_hist,right_label_hist)
    %Entropy for the left child
    len_l = length(left_label_hist);
    p_l = sum(left_label_hist)/len_l;
    if (p_l == 0) || (p_l ==1)
        e_l = 0;
    else
        q_l = 1-p_l;
        e_l = -1*(p_l*log2(p_l) + q_l*log2(q_l));
    end
    %Entropy for the right child
    len_r = length(right_label_hist);
    p_r = sum(right_label_hist)/len_r;
    if (p_r == 0) || (p_r ==1)
        e_r = 0;
    else
        q_r = 1-p_r;
        e_r = -1*(p_r*log2(p_r) + q_r*log2(q_r));
    end
    %Entropy for the parent
    len = len_l + len_r;
    p_p = (sum(left_label_hist) + sum(right_label_hist))/len;
    q_p = 1 - p_p;
    e_p = -10 * (p_p*log2(p_p) + q_p*log2(q_p));
    weighed_ent = (len_l*e_l + len_r*e_r)/len;
    imba = e_p - weighed_ent;
    %imba = abs(imba);

end
```

Not enough input arguments.

Error in Impurity (line 4)
len_l = length(left_label_hist);

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