

tf.nn.compute_accidental_hits

```
compute_accidental_hits(  
    true_classes,  
    sampled_candidates,  
    num_true,  
    seed=None,  
    name=None  
)
```

Defined in [tensorflow/python/ops/candidate_sampling_ops.py](#).

See the guide: [Neural Network > Candidate Sampling](#)

Compute the position ids in `sampled_candidates` matching `true_classes`.

In Candidate Sampling, this operation facilitates virtually removing sampled classes which happen to match target classes. This is done in Sampled Softmax and Sampled Logistic.

See our [Candidate Sampling Algorithms Reference](#).

We presuppose that the `sampled_candidates` are unique.

We call it an 'accidental hit' when one of the target classes matches one of the sampled classes. This operation reports accidental hits as triples `(index, id, weight)`, where `index` represents the row number in `true_classes`, `id` represents the position in `sampled_candidates`, and weight is `-FLOAT_MAX`.

The result of this op should be passed through a `sparse_to_dense` operation, then added to the logits of the sampled classes. This removes the contradictory effect of accidentally sampling the true target classes as noise classes for the same example.

Args:

- `true_classes`: A `Tensor` of type `int64` and shape `[batch_size, num_true]`. The target classes.
- `sampled_candidates`: A tensor of type `int64` and shape `[num_sampled]`. The sampled_candidates output of `CandidateSampler`.
- `num_true`: An `int`. The number of target classes per training example.
- `seed`: An `int`. An operation-specific seed. Default is 0.
- `name`: A name for the operation (optional).

Returns:

- `indices`: A `Tensor` of type `int32` and shape `[num_accidental_hits]`. Values indicate rows in `true_classes`.
- `ids`: A `Tensor` of type `int64` and shape `[num_accidental_hits]`. Values indicate positions in `sampled_candidates`.
- `weights`: A `Tensor` of type `float` and shape `[num_accidental_hits]`. Each value is `-FLOAT_MAX`.

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