tf.contrib.bayesflow.variational_inference.elbo_with_log_joint

```
elbo_with_log_joint(
    log_joint,
    variational=None,
    keep_batch_dim=True,
    form=None,
    name='ELBO'
)
```

Defined in `tensorflow/contrib/bayesflow/python/ops/variational_inference_impl.py`.

See the guide: BayesFlow Variational Inference (contrib) > Ops

Evidence Lower BOund. `log p(x) >= ELBO`.

This method is for models that have computed `p(x,Z)` instead of `p(x|Z)`. See `elbo` for further details.

Because only the joint is specified, analytic KL is not available.

Args:

- `log_joint`: `Tensor` log p(x, Z).
- `variational`: list of `StochasticTensor` q(Z). If `None`, defaults to all `StochasticTensor` objects upstream of `log_joint`.
- `keep_batch_dim`: bool. Whether to keep the batch dimension when summing entropy term. When the sample is per data point, this should be True; otherwise (e.g. in a Bayesian NN), this should be False.
- `form`: ELBOForms constant. Controls how the ELBO is computed. Defaults to ELBOForms.default.
- `name`: name to prefix ops with.

Returns:

`Tensor` ELBO of the same type and shape as `log_joint`.

Raises:

- `TypeError`: if variationals in `variational` are not `StochasticTensor`s.
- `TypeError`: if form is not a valid ELBOForms constant.
- `ValueError`: if `variational` is None and there are no `StochasticTensor`s upstream of `log_joint`.
- `ValueError`: if form is ELBOForms.analytic_kl.

Last updated November 2, 2017.

Stay Connected

Blog

GitHub

Twitter

Support

Issue Tracker

Release Notes

Stack Overflow

English

Terms | **Privacy**