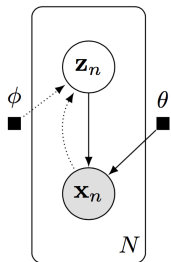
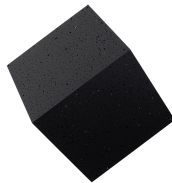


Deep Probabilistic Programming with Edward

Dustin Tran, Matt Hoffman, Kevin Murphy,
Eugene Brevdo, Rif Saurous, David Blei



```
# Probabilistic model
```

```
z = Normal(mu=tf.zeros([N, d]), sigma=tf.ones([N, d]))  
h = slim.fully_connected(z, 256, activation_fn=tf.nn.relu)  
x = Bernoulli(logits=slim.fully_connected(h, 28 * 28))
```

```
# Variational model
```

```
qx = tf.placeholder(tf.float32, [N, 28 * 28])  
qh = slim.fully_connected(qx, 256, activation_fn=tf.nn.relu)  
qz = Normal(mu=slim.fully_connected(qh, d)  
             sigma=slim.fully_connected(qh, d, activation_fn=tf.nn.softplus))
```