**Lecture 8 Poll**

**Slide 17** (2 polls)

Which of the following losses is convex with respect to the weights of the final softmax layer

* KL
* L2

Which of the following losses has a distinct minimum with respect to the weights of the final softmax layer

* KL
* L2
* Both

**Slide 27**

Batch norm accounts for covariate shift between

* Minibatches
* Individual training instances
* The entire training data

**Slide 44**

Mark all true statements

* In BatchNorm the normalized value u\_i for any z\_i depends on all the other z\_is in the minibatch
* In BatchNorm the normalized value u\_i for any z\_i depends on all the other u\_is in the minibatch

Batch norm at any neuron is a *vector* operation over all the inputs in a minibatch, true or false

* True
* False

**Slide 89**

Batch normalization effectively blocks backpropagation and prevents gradient computation if all the instances in a minibatch are identical, or very similar. True or false

* True
* False