

**CS685 Quiz 4: *probe tasks***

Released 4/13, due 4/19 on Gradescope (please upload a PDF!)

*Please answer both questions in 2-4 sentences each.*

1. Let's say we want to design a probe task to measure whether BERT's token-level representations encode information about whether or not a particular token is a named entity. Why do we have to freeze BERT's representations during the training of our probe network?
2. Now let's say we want to probe whether or not BERT's [CLS] token has encoded the length of an input sentence. Explain how you would design a control task for this probe to address the effect of probe network complexity.