

## **CSCI 394. Computational Linguistics**

### Short assignment

Using a diagram and a verbal explanation, explain how the following language technology problems can be framed in the noisy-channel model. For each, explain what the “source” is (possibly a hypothetical source), what the observation is, and what the corrupting channel is. Explain how we are to understand the parameters in Bayes’ theorem.

- Spelling correction/recovery (ie, the correcting of misspelled words)
- Authorship attribution
- Topic classification
- Document compression and/or decompression

**Challenge:** Think of another language technology problem and explain how it can be describe in the noisy-channel model.