**Neural Networks for Named Entity Recognition**

**Stanford CS224n Natural Language Processing – Final Project**

**By Patrick Manion and Daoying Lin**

**1. Introduction**

<BRIEF – PATRICK>

**2. System Design**

<PATRICK TO FILL IN>

**3. Gradient Details**

<DAOYING>

**4. Testing Results**

We ran a number of tests... after tuning we found good performance with this benchmark (describe) and ran a series of tests to on top of this

**a. Learning Rate Tests**

<PATRICK>

**b. Regularization Values**

<PATRICK>

**c. Hidden Layer Size**

<DAOYING>

**d. Window Size**

<DAOYING>

**e. Fixed Word Vectors vs. Updating Word Vectors**

<PATRICK>

**f. Randomly Initialized vs Pre-Trained Word Vectors**

<DAOYING>

**5. Error Analysis**

<BOTH OF US – CAN WE CREATE SOME SECTIONS?>

**6. Extra Credit**

<PATRICK>

**a. Alternative Word Vectors**

<DAOYING>

**b. Deeper Networks**

<DAOYING>

**a. Visualization of Word Vector Training**

<PATRICK>