**Graphics Project**

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**Project Topic**: Learning natural language models based on personalized messages

**Goal**: Starting with a well-established NLP model, we will train an RNN (likely a modification of an LSTM) to learn to chat as if they were a specific person using a corpus of that person’s facebook messages. This will likely be evaluated by the model answering a series of questions. We plan to have our model start with an implementation of End-To-End Memory Networks (Sukhbaatar, Weston & Fergus, 2015). Specifically, we will start with the code located here: <https://github.com/fchollet/keras/blob/master/examples/babi_memnn.py>. Then, we will make modifications to it that emphasize our particular training data set of personal messages. We will likely use several of Jason Weston’s other recent papers including “Large-scale simple question answering with memory networks”.

**Target Deliverables**:

1. Basic NLP model that can respond to messages
2. Corpus of facebook messages formatted in such a way that they can be trained on
3. Personalized message bots for both Chandan, and Muthu
4. Description of architecture that produces best results for creating personalized models

Sukhbaatar S, Weston J, Fergus R. End-to-end memory networks. In Advances in neural information processing systems 2015 (pp. 2440-2448).