



College of Engineering

CS CAPSTONE WINTER PROGRESS REPORT

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KORA

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Abstract

This document outlines the production progress of Kora from December 2017 through the middle of February 2018, including obstacles and steps moving forward.

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1 PURPOSE

Kora is a proof of concept project that will integrate a natural language processing library into Autodesk's 3-D computer aided design software, Fusion. Kora will be a speech-based virtual assistant for Fusion that lets users perform a subset of tasks within the product, such as saving a document or opening a menu, by verbally instructing it to perform the task. As a stretch goal, Kora will be capable of questioning the user and using responses to predict and automatically assist with future user behavior.

Kora will offer users a tool that decreases the time required to achieve their goals within Fusion by offering an interface that runs in parallel with and complements the keyboard and mouse. If the stretch goal is achieved, Kora will further increase productivity by learning to automate specific workflows within the product.

2 GOALS

2.1 Main Goals

- Kora will allow the user to perform tasks in Fusion via a voice interface. Each voice command given by the user will be mapped to a specific task which will then be performed in the open Fusion design.
- All interactions with Kora will be logged for debugging and future development purposes.

2.2 Stretch Goals

- Kora will periodically ask the user questions regarding why they have performed specific tasks. The questions asked by Kora will pertain to specific predefined contexts.
- Kora will record user responses and save a transcript along with contextual information.
- User responses to interview questions will be used to try to predict and assist with future user actions.

3 PROJECT PROGRESS

Kora's MongoDB database will have two collections: Interaction and Logs. The Interaction collection is setup and functioning. The Interaction collection stores documents describing each user-Kora interaction. Each document contains the posting date, the user's Fusion ID number, the JSON returned by WIT.ai, the chosen Fusion API call, Fusion's execution status, and the time it took from when the user stopped talking to the time Fusion finished executing the command.

4 OBSTACLES

5 MOVING FORWARD

6 PHOTOS

The assignment page said: *includes images of your project – screen shots, photos, whatever is appropriate*. So, maybe we could add a picture of the tool Add-In drop down that says "Activate/Deactive Kora", and maybe a Fusion message box popping up with something relevant on it.