

NLP Project Proposal

CS795 | Fall - 2020

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Project: Voice-enabled dialogue assistant to for getting information on food nutritions

Our goal is to leverage the power of Natural Language Processing to find nutritious values of foods from the voice commands of the users. We will make a web application that will let the users talk to. We collect the voice command and may use Syntactic Parsing to extract the information about what the users actually want. After extracting the information from the command, we shall send the key values to an API and show returned information in a structured way.

Our first challenge will be to get the proper semantic from the voice command, convert it to the text, and make it usable for working with API.

Our next challenge will be to connect between searches. We remember your soup example from class. If a user searches for soup, there can be a lot of different soups to choose from. So we may use reinforcement learning such as the *Partially observable Markov decision process* to remember when the user specifies *chicken soup* after that. So that whenever the user asks for soup next time, our application automatically shows the result of chicken soup.