

# COVID-19: REDUCING CALL CENTER LOAD THROUGH CHATBOT AND FORECASTING SPREAD

Shreejaya Bharathan, Stephanie Jung, Hannah Lyon, Aakanksha Nallabothula, Ivette Sulca

## THE NEED:

Right now, health call centers are inundated with phone calls, many of which are questions requiring only basic responses.

Washington state alone has over **70 phone lines** with an average 10 minute wait time

## THE SOLUTION:

A CHATBOT THAT CAN DETECT THE INTENT OF A  
USER'S QUESTION AND RESPOND WITH  
INFORMATION STRAIGHT FROM THE CDC OR WHO

DATA:

For EDA, we first scraped coronavirus related tweets from Twitter using their API. We then explored common trends in the data to see what the main concerns and questions were. From there, we formulated our own dataset of commonly asked questions on which to train our model.

MODEL:

Our model was a simple multi-class logistic regression model. Though we have also added the options of using Ridge, Naive Bayes, KNearestNeighbour, and Random Forest Classifiers as well. In the future, we could also try to use a neural network based model.



## FORECASTING:

