

**MICHIGAN STATE**  

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**UNIVERSITY**

# Beta Presentation

# Self-Improving Assistant

The Capstone Experience

Team Vectorform

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*From Students...*  
*...to Professionals*

Department of Computer Science and Engineering  
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Fall 2020

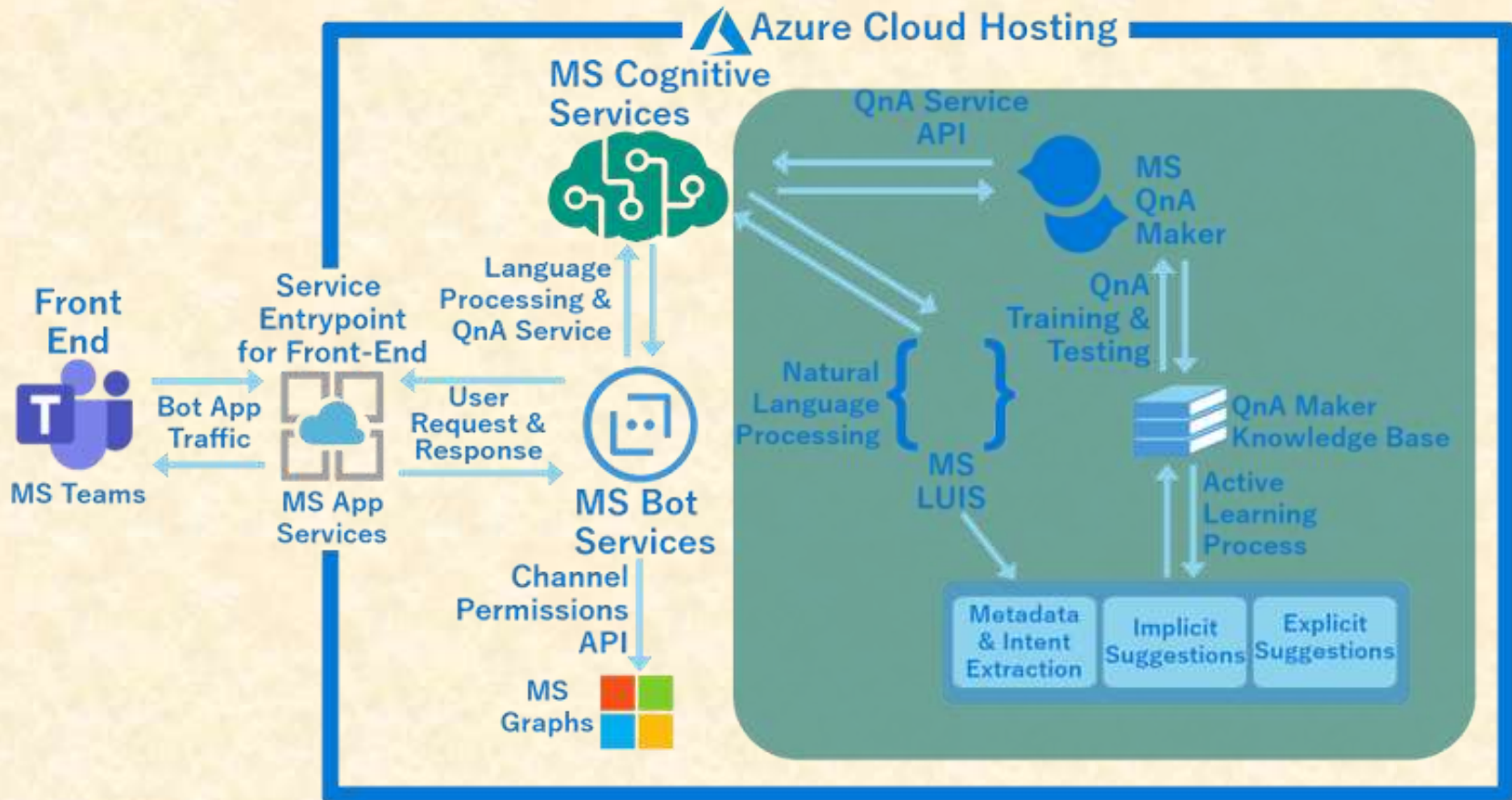
# Project Overview

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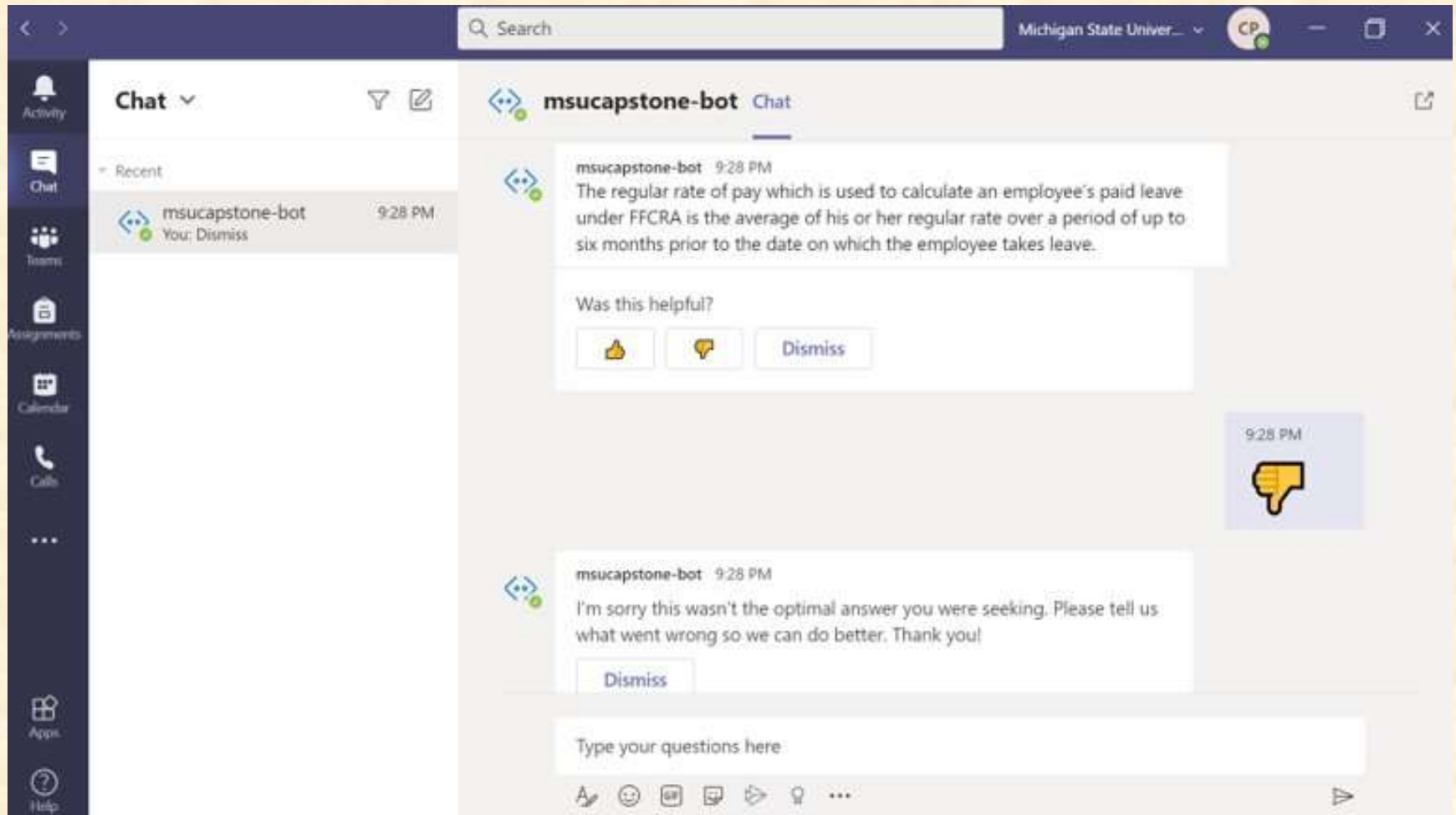
- Chatbot available in Microsoft Teams
- Initialized and tuned inside of Teams
- Generates responses from documents
  - Question and Answer documents
  - Product Manuals
- Various methods of self-improvement
  - Active Learning
  - User Feedback after questions



# System Architecture



# User Feedback Functionality



# Administrator Commands

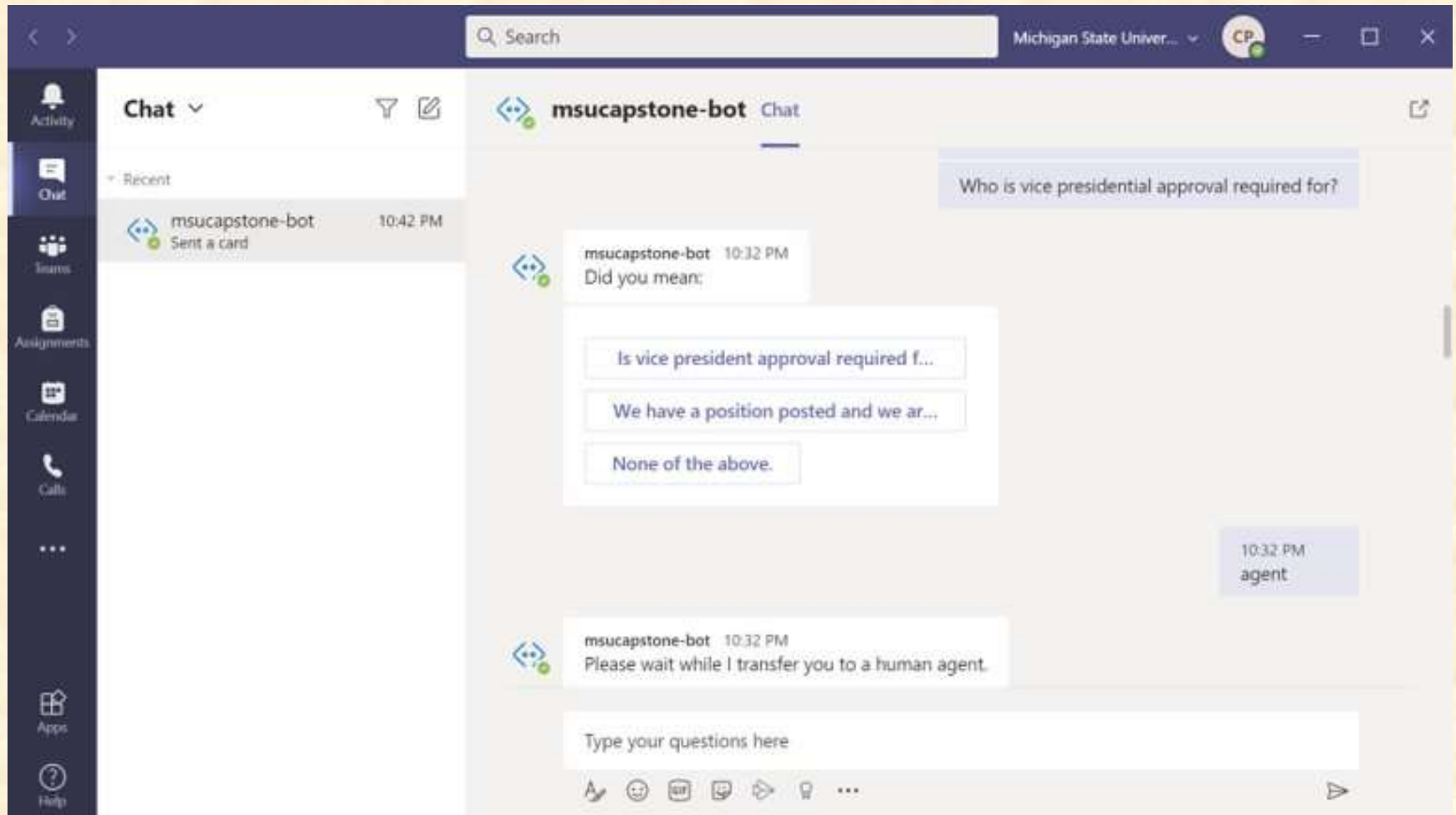
The screenshot shows a Microsoft Teams chat window for a bot named 'msucapstone-bot'. The chat history includes a message from the bot at 1:59 PM stating 'No QnAMaker answers found.' and a subsequent message from the user '@ help'. The bot's response is a large white box containing the following text:

**Configure the QnABot!**  
**@ Administrator Commands:**

- create [link] (new data knowledge base)
- add [link] (add a QnA pair)
- delete (remove data from knowledge base)

Below the list, a confirmation message reads: 'Bot command executed sucessfully!' (note the typo). The chat also shows a user message 'hello' at 2:00 PM. The interface includes a search bar at the top, a left-hand navigation pane with icons for Activity, Chat, Teams, Assignments, Calendar, Calls, and Apps, and a bottom input area with the placeholder text 'Type your questions here'.

# Human Agent Service





# Active Learning

The screenshot displays a Microsoft Teams chat window. At the top, there is a search bar and the text "Michigan State Univer...". The chat is titled "msucapstone-bot Chat". A card from the bot is visible, containing a thumbs up/down icon and a "Dismiss" button. Below this, the user has sent a message: "Who is vice presidential approval required for?". The bot has responded with "Did you mean:" and three buttons: "Is vice president approval required f...", "We have a position posted and we ar...", and "None of the above.". The chat interface includes a left sidebar with navigation icons (Activity, Chat, Teams, Assignments, Calendar, Calls, Apps, Help) and a bottom input field with the placeholder text "Type your questions here".



# What's left to do?

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- Implement Text to Speech capability.
- Add more admin functionality to edit Knowledge base through the Bot.
  - Edit existing questions, add new from scratch, etc.
- Use Azure Storage to regularly backup data.





# Questions?

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