

MICHIGAN STATE
UNIVERSITY

Alpha Presentation Self-Improving Assistant

The Capstone Experience

Team Vectorform

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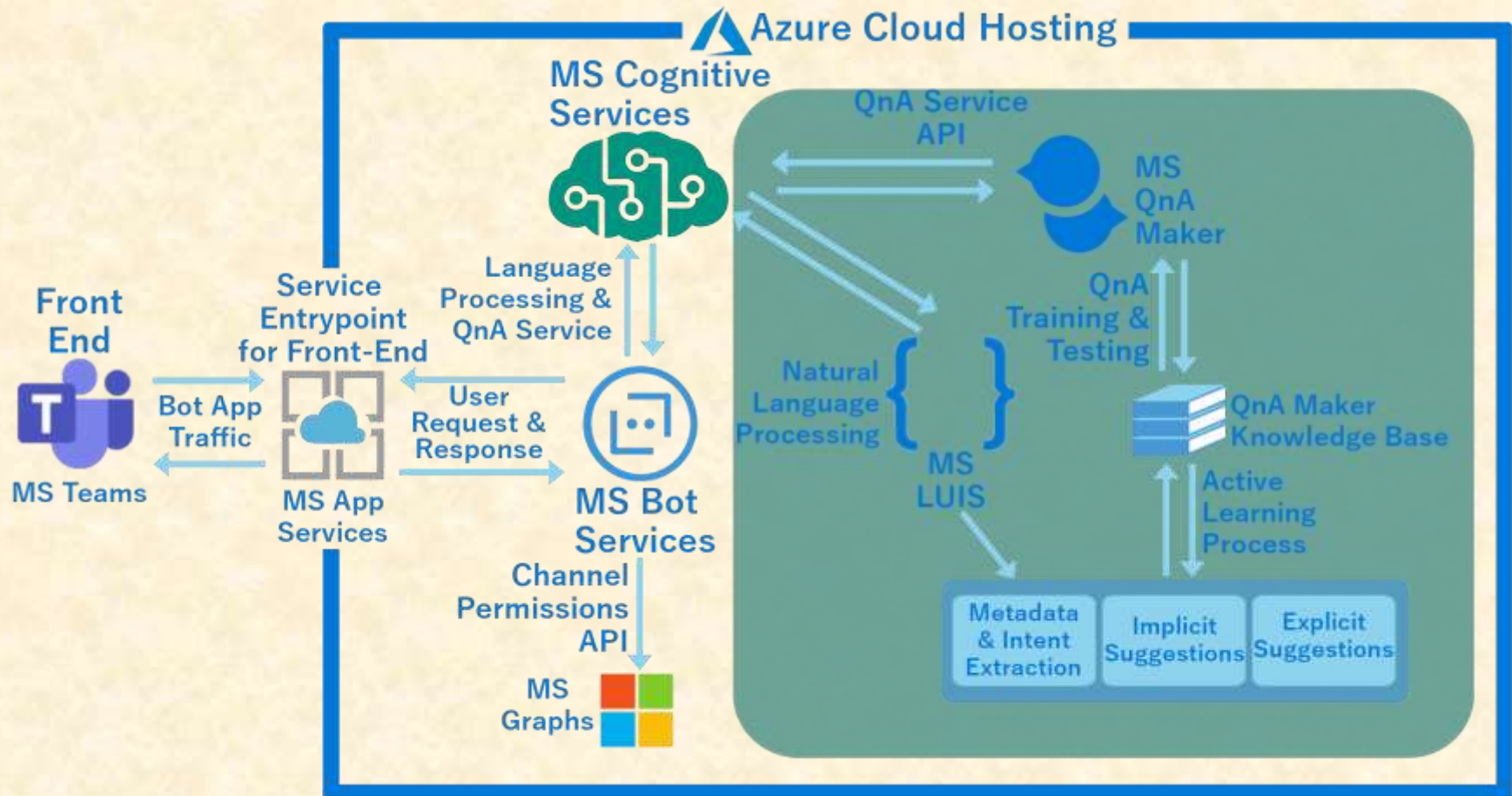
*From Students...
...to Professionals*

Department of Computer Science and Engineering
Michigan State University
Fall 2020

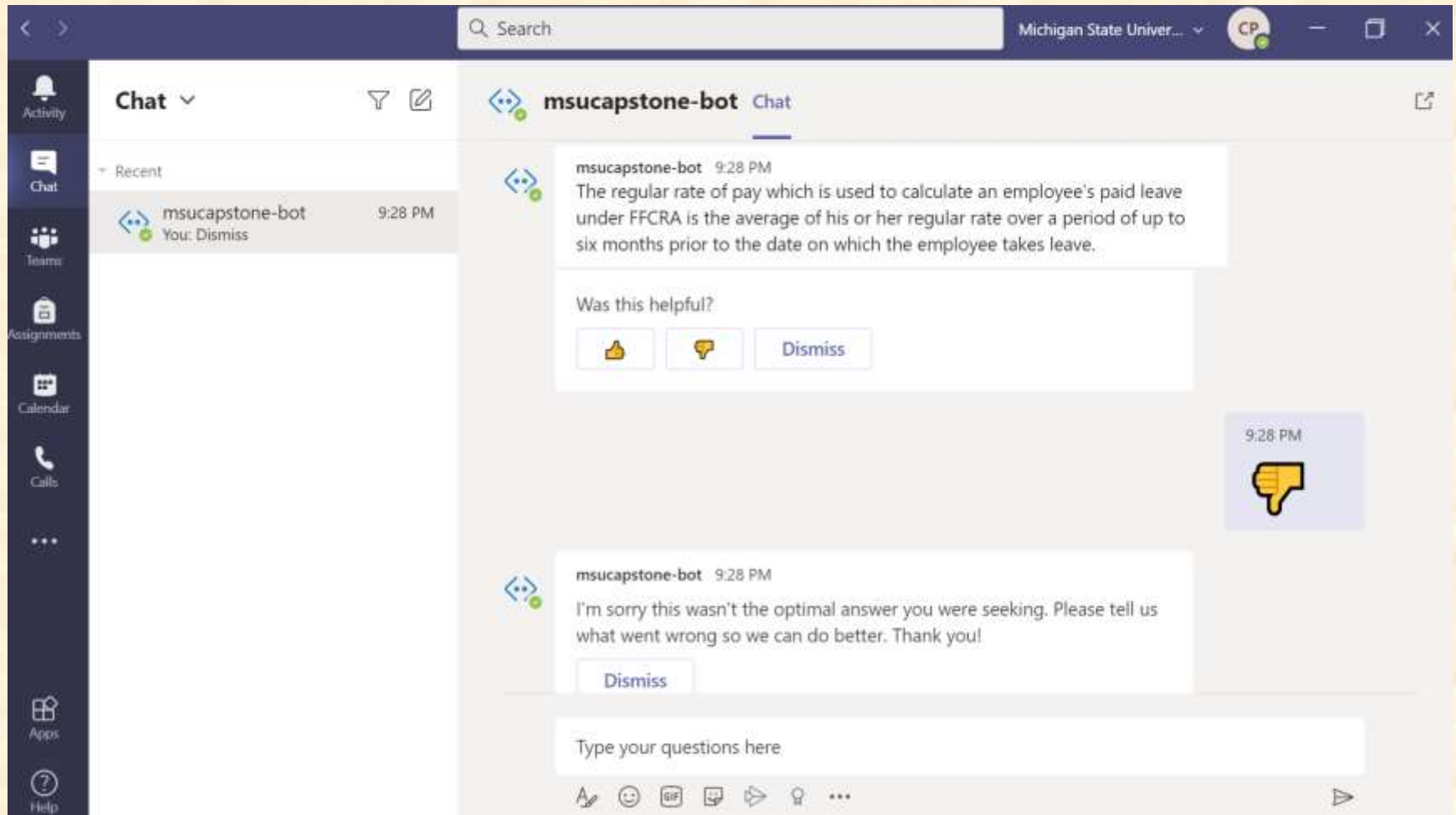
Project Overview

- 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 interface. The top bar includes a search bar, the text "Michigan State Univer...", and a user profile icon labeled "CP". The left sidebar contains navigation icons for Activity, Chat, Teams, Assignments, Calendar, Calls, and Help. The main chat area is titled "msucapstone-bot Chat".

Recent chat history shows a message from "msucapstone-bot" at 9:28 PM with the text "You: Dismiss".

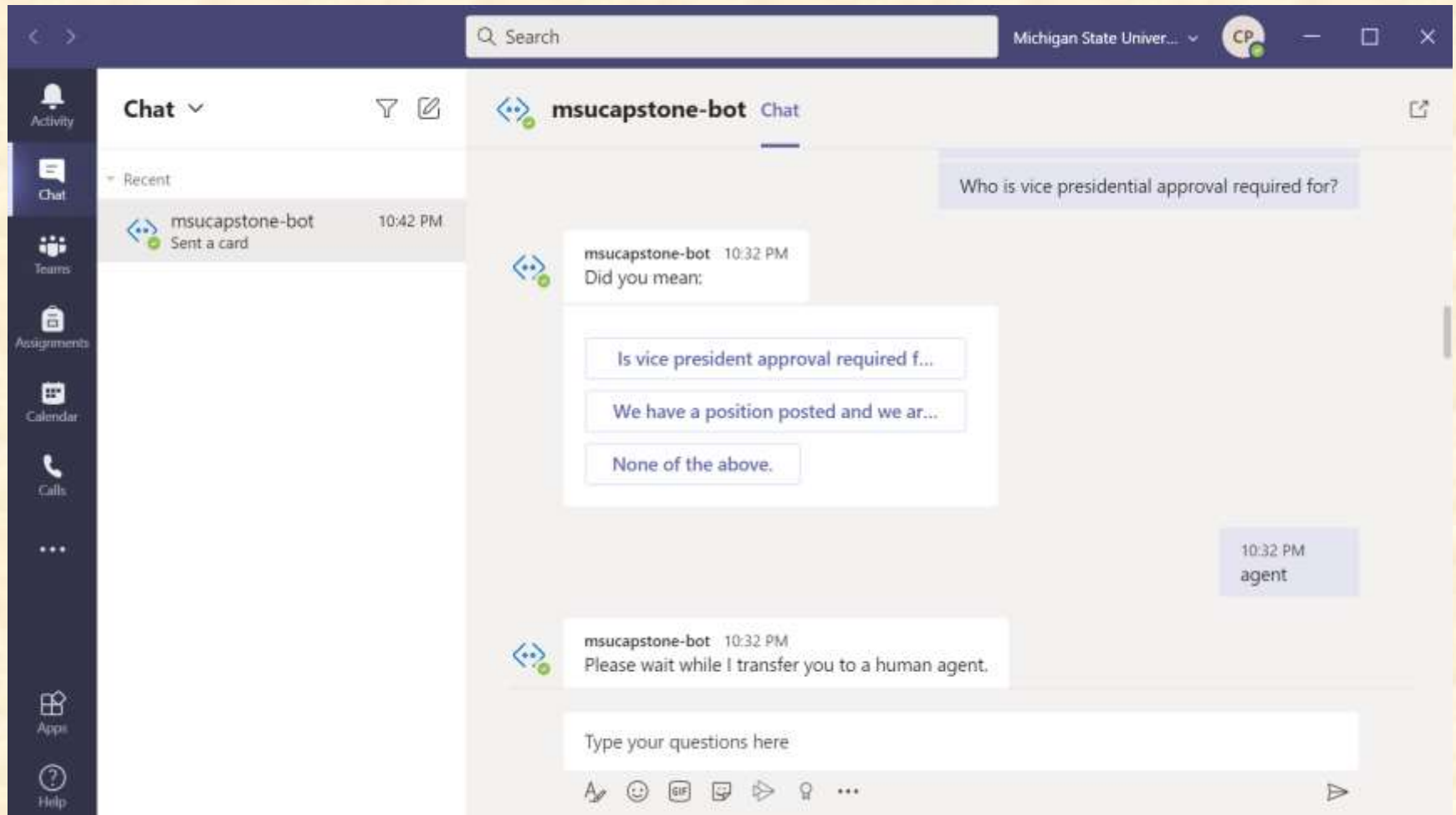
The current chat history includes:

- A message from "msucapstone-bot" at "Yesterday 1:59 PM" with the text: "No QnAMaker answers found."
- A large white box containing the text: "Configure the QnABot!" followed by "@ Administrator Commands:" and a list of commands:
 - create [link] (new data knowledge base)
 - add [link] (add a QnA pair)
 - delete (remove data from knowledge base)
- A message from "msucapstone-bot" at "Yesterday 1:59 PM" with the text: "Bot command executed sucessfully!"
- A date separator "Today".
- A message from "msucapstone-bot" at "2:00 PM" with the text: "hello".

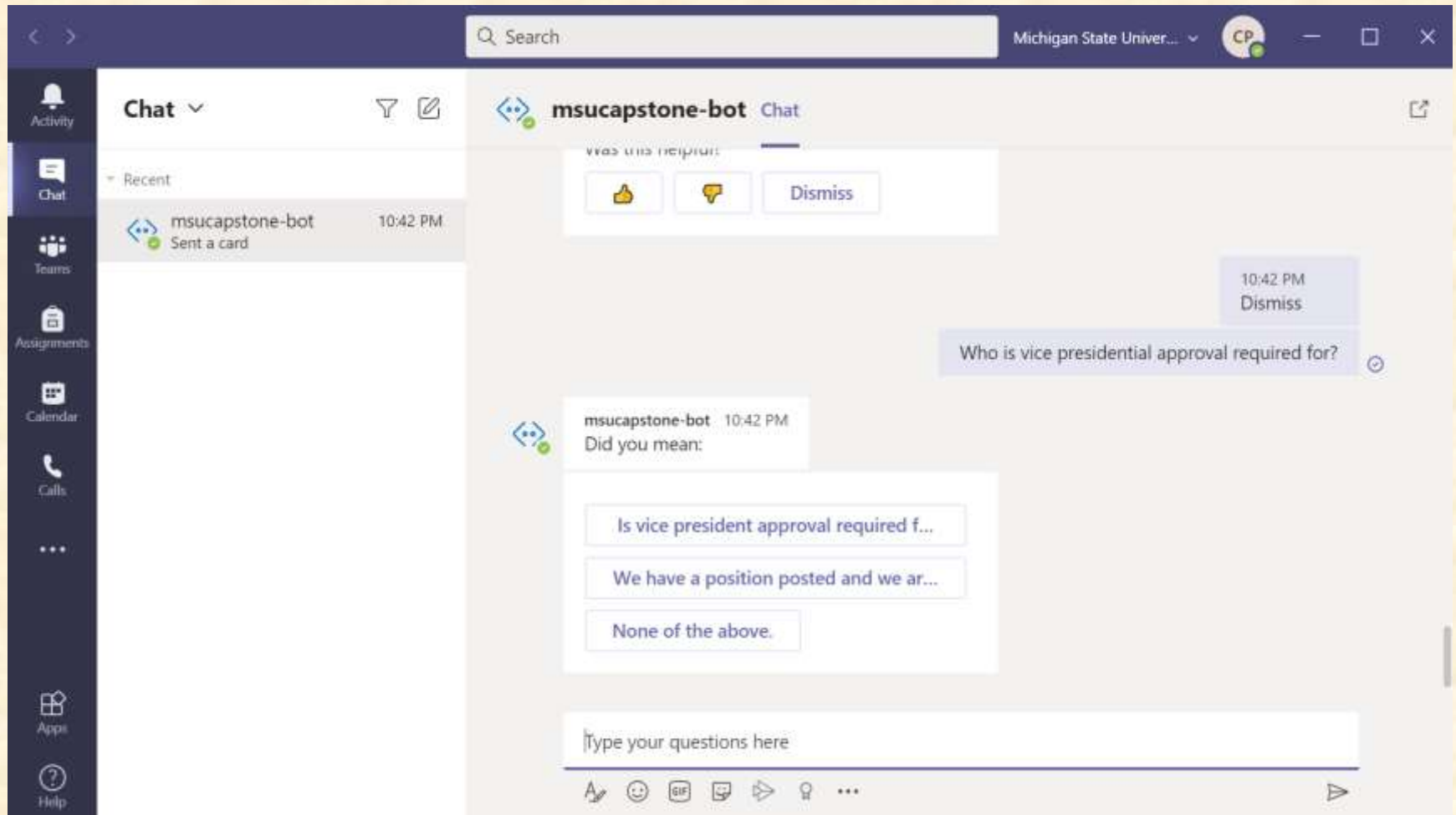
The bottom of the chat window features a text input field with the placeholder "Type your questions here" and a row of icons for attachments, emojis, GIFs, and other chat functions.



Connect Bot to Human Agent



Active Learning Prompt



What's left to do?

- Implement full Graph API permissions
 - Give audio, visual, and private channel support from support staff to users.
- Handling of Customer Support queue
 - Forms and logic to add new question-answer pairs directly from queue.
- Blob Storage for more flexible source uploads
 - Directly dropping of files into Teams chat to initialize or update a bot.
- LUIS Sentiment analysis
 - Add a further case under which human support is offered, triggered by negative sentiment.

Questions?

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