MICHIGAN STATE UNIVERSITY

Project Plan Presentation

Watcher of Attuned Video Experiences (WAVE)

The Capstone Experience

Team TechSmith

Marcus Cohen, cohenm16@msu.edu
Josh Costantino, costan32@msu.edu
Shane Jose, joseshan@msu.edu
Meenakshi Menon, menonmee@msu.edu
Phoebe Mensah, mensahph@msu.edu
Noor Muhammad, muham101@msu.edu

Department of Computer Science and Engineering
Michigan State University

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From Students…
…to Professionals

Project Sponsor Overview

- Global leader in screen recording and capture software
- Flagship products: Snagit, Camtasia
- Headquartered in East Lansing

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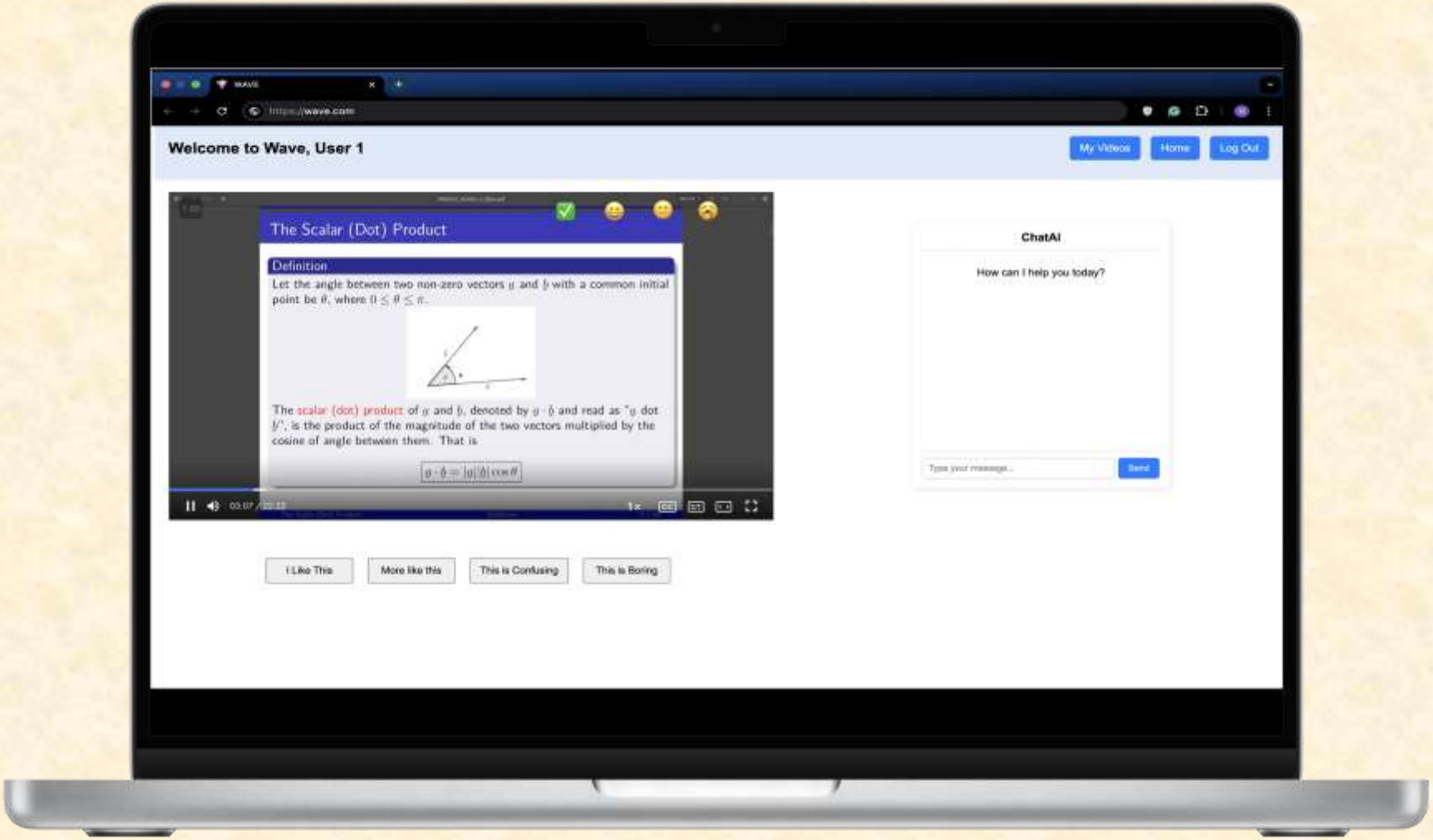
Project Functional Specifications

- Improving user experience with video content
- Users can specify their desires for the video and categorize the general content
- Cuts down videos into key points to make them more watchable
- Allows users to give feedback so it can improve itself
- Creates profile on users to tailor to their preferences

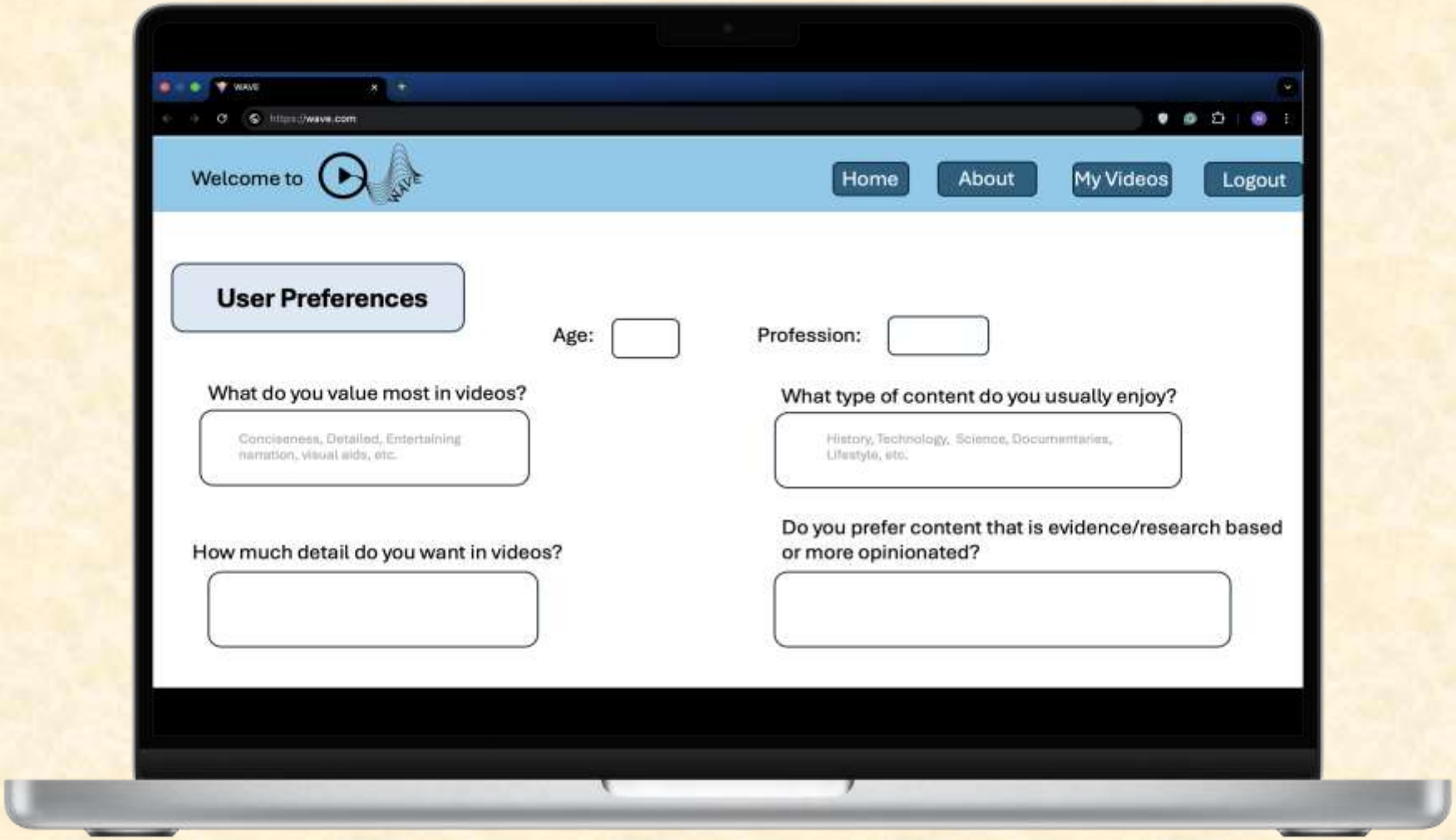
Project Design Specifications

- Main video interface with AI chatbot
- Multiple pages to store and contextualize user's intention
- Design an intuitive, user-friendly interface

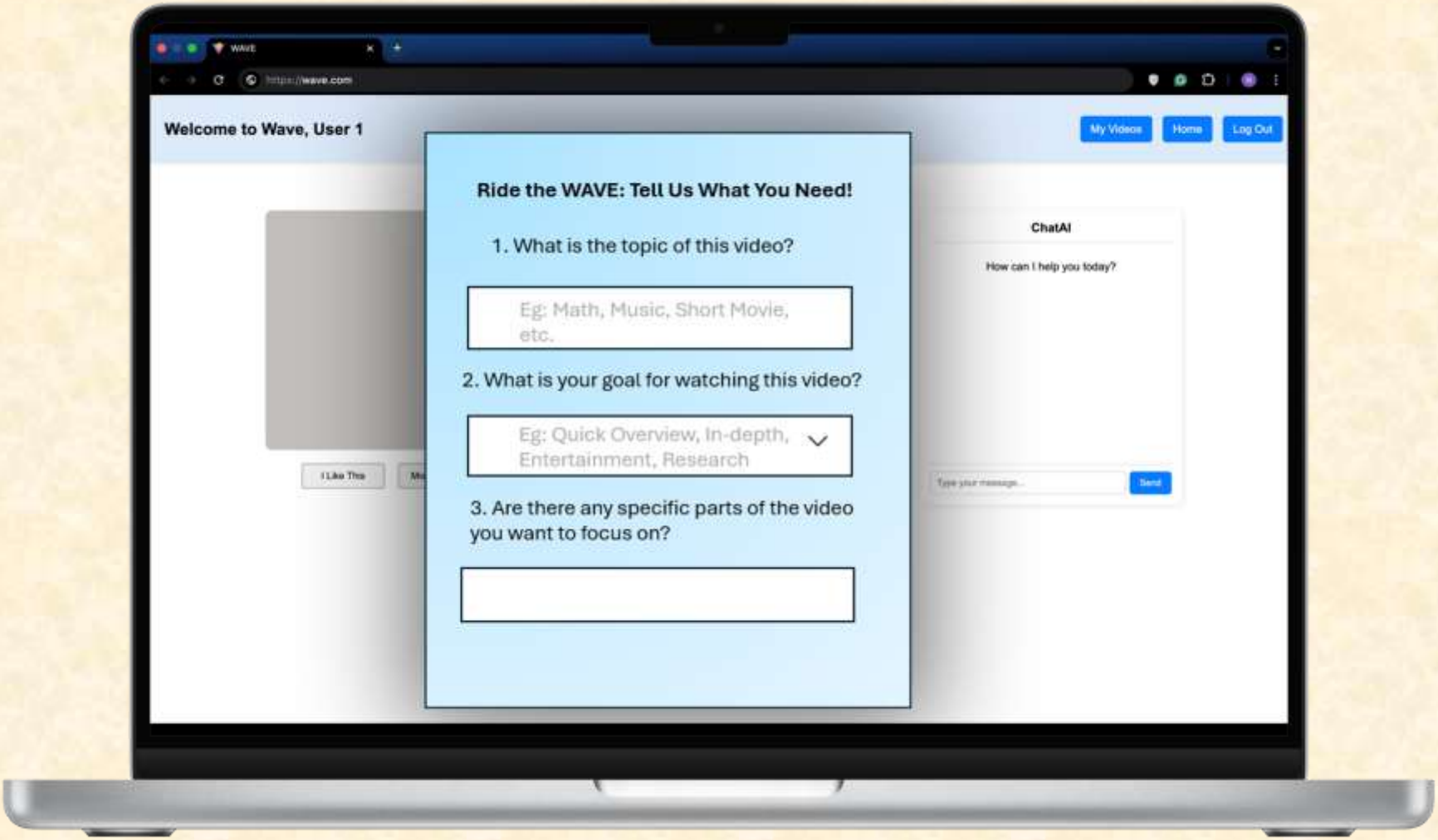
Screen Mockup: Video Interface



Screen Mockup: User Preferences

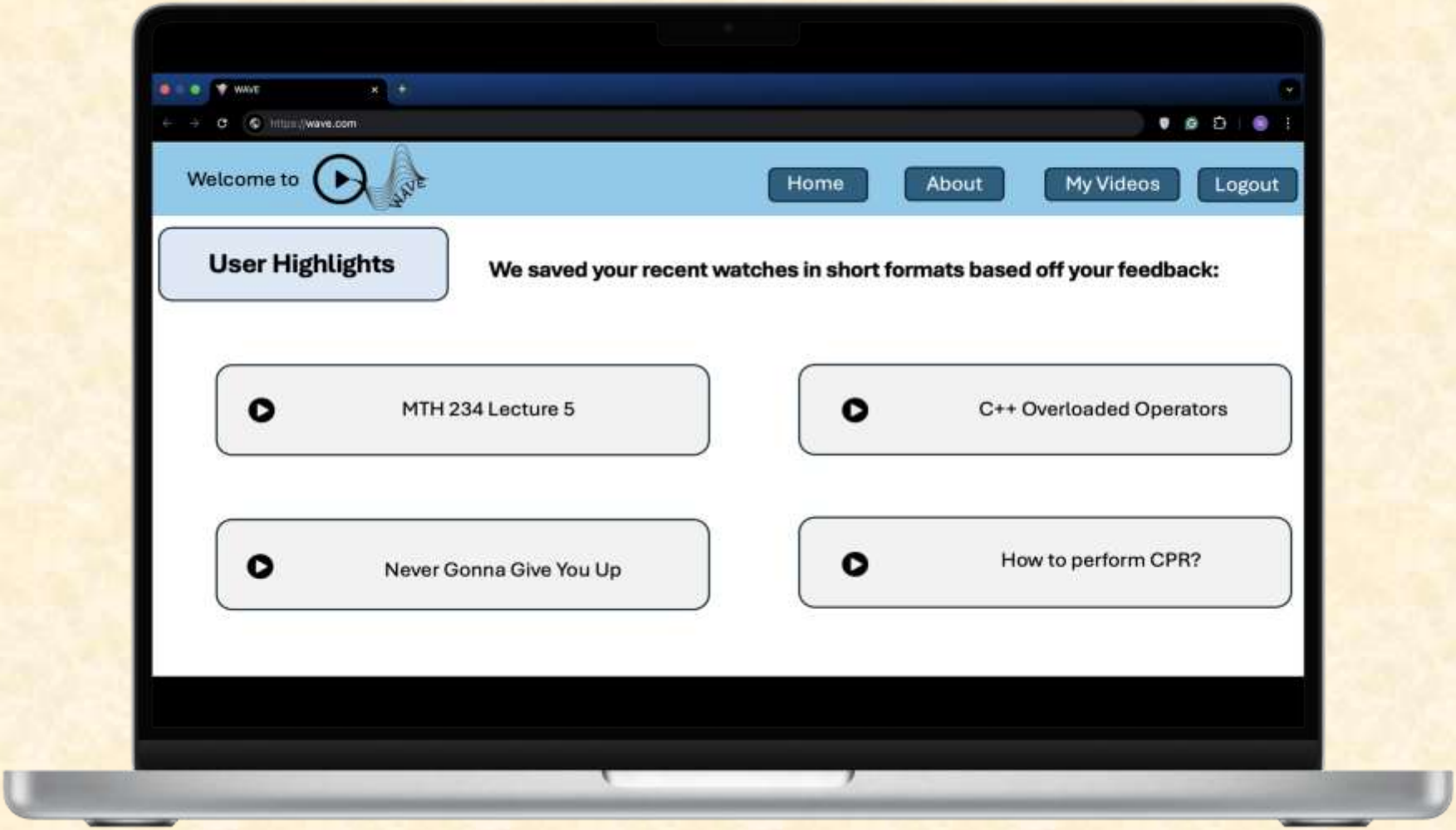


Screen Mockup: Pre-Video Questionnaire



Screen Mockup: User History

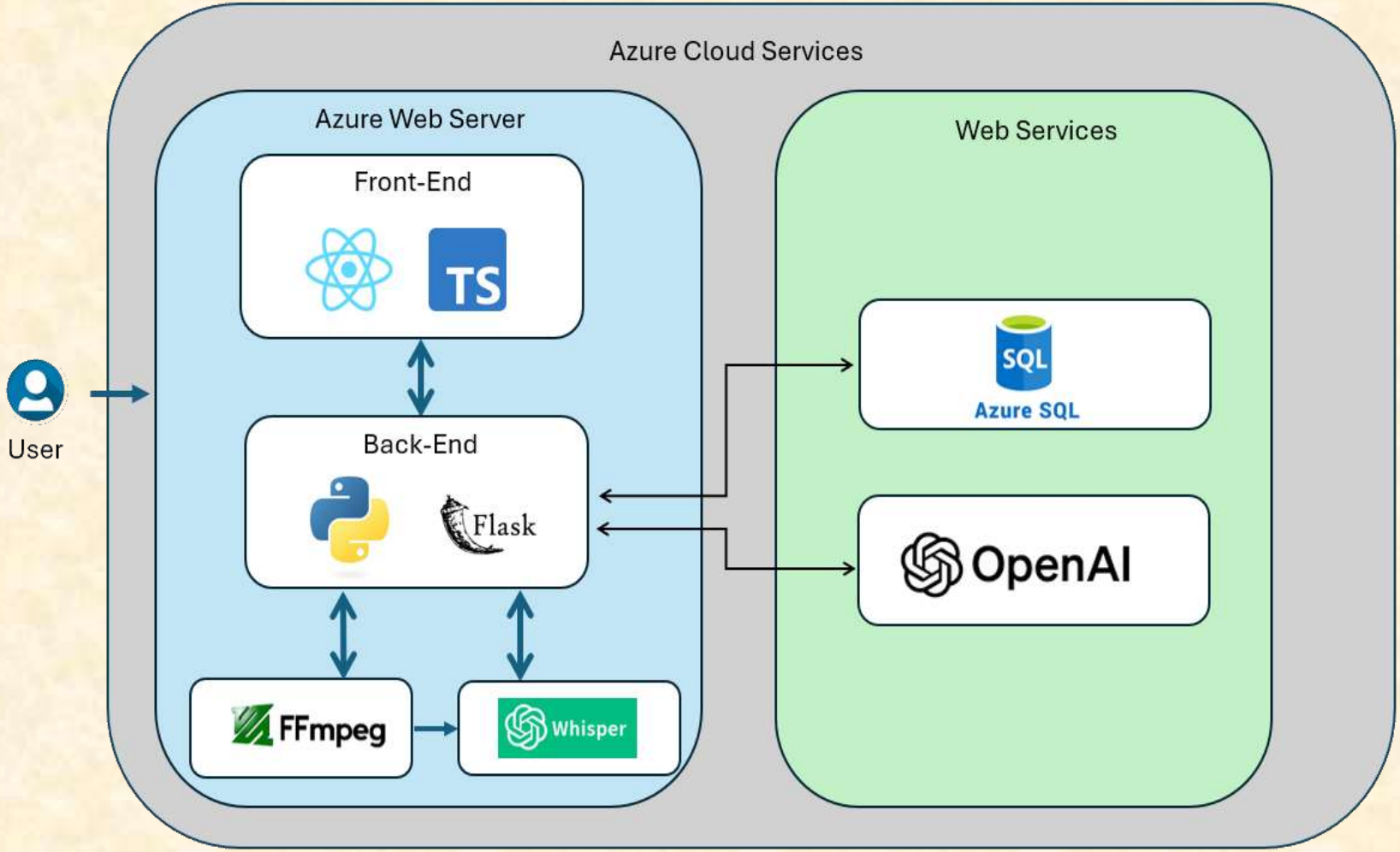
Screen Mockup: User Highlights



Project Technical Specifications

- WAVE is hosted on a Microsoft Azure web server
- Back-end:
  - Flask/Python
  - Whisper Model
  - Azure SQL Database
- Front-end
  - React
  - Typescript
- FFmpeg for video processing

Project System Architecture



Project System Components

- Software Platforms / Technologies
  - Server Systems
    - Microsoft Azure
    - Azure SQL Database
    - OpenAI
    - Whisper
  - Development Systems
    - React/Typescript
    - FFmpeg
    - Flask/Python

Project Risks

- Dynamically Updating Videos Based on User Preferences
  - Ensuring videos update dynamically by identifying key moments and timestamps
  - Use Whisper model to generate transcripts and timestamps
  - Utilize Open AI's LLMs to analyze transcripts and identify key points
- Enhance User Interactive Experience
  - Capturing real-time user feedback while watching videos
  - Tracking user reactions and identifying sections of the video for further user engagement
  - Use OpenAI to generate relevant explanations, summaries, or recommendations
- Saving User Video Progress
  - Ensure users can resume video playback from where they left off
  - Store user progress in Azure SQL and retrieve it upon return
- Seamless Integration of Video Player
  - Ensure smooth collaboration between multiple technologies
  - Focus on performance, optimization, debugging, and seamless communication between components

Questions?