

MICHIGAN STATE

UNIVERSITY

Project Plan Presentation

Enhanced Video Assistant

The Capstone Experience

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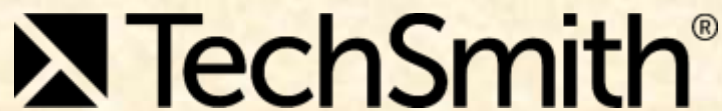
Spring 2024



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

Project Sponsor Overview

- Software company based in East Lansing
- Specializes in video-editing and capturing
- Popular products: Camtasia, Snagit, Audiate



Project Functional Specifications

- Simplifies video editing
- Video Streamliner : Condense videos to key moments
- Narration Improver : Enhances audio quality
- AI Focus Group : Provide real-time feedback for improvement

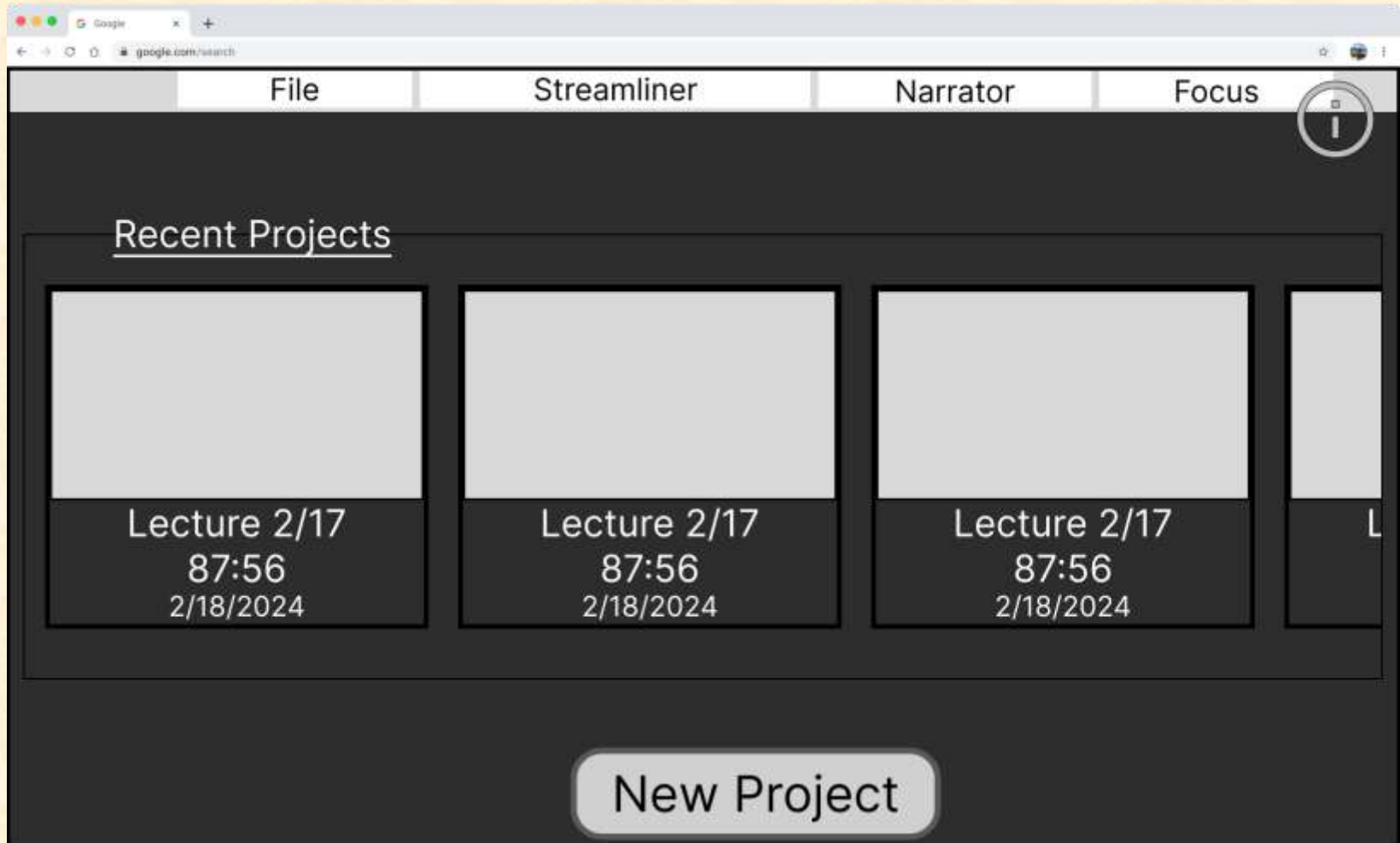


Project Design Specifications

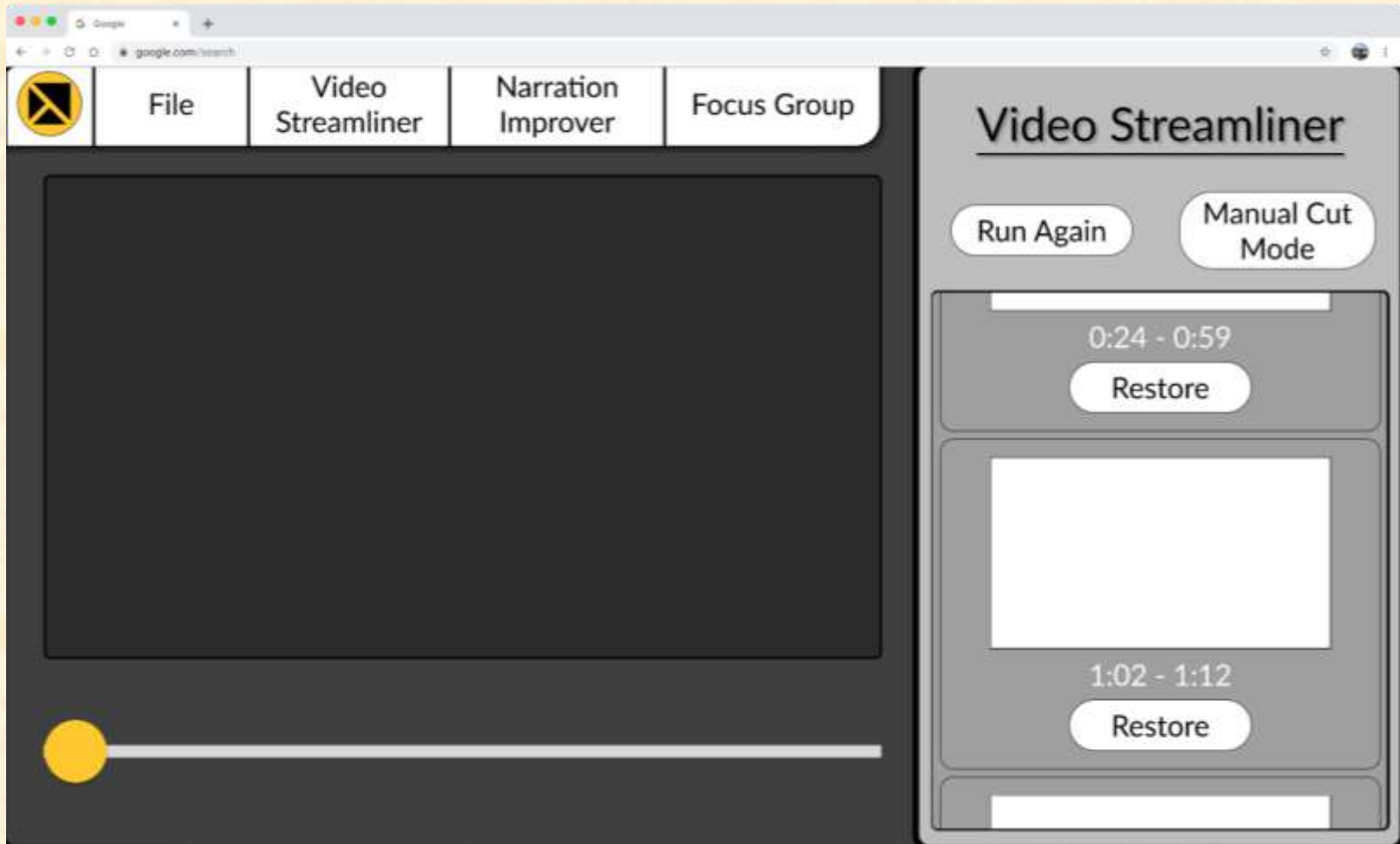
- User-centric design
- Integration of AI features
- Responsive and accessible design
- Flexibility in customization and editing



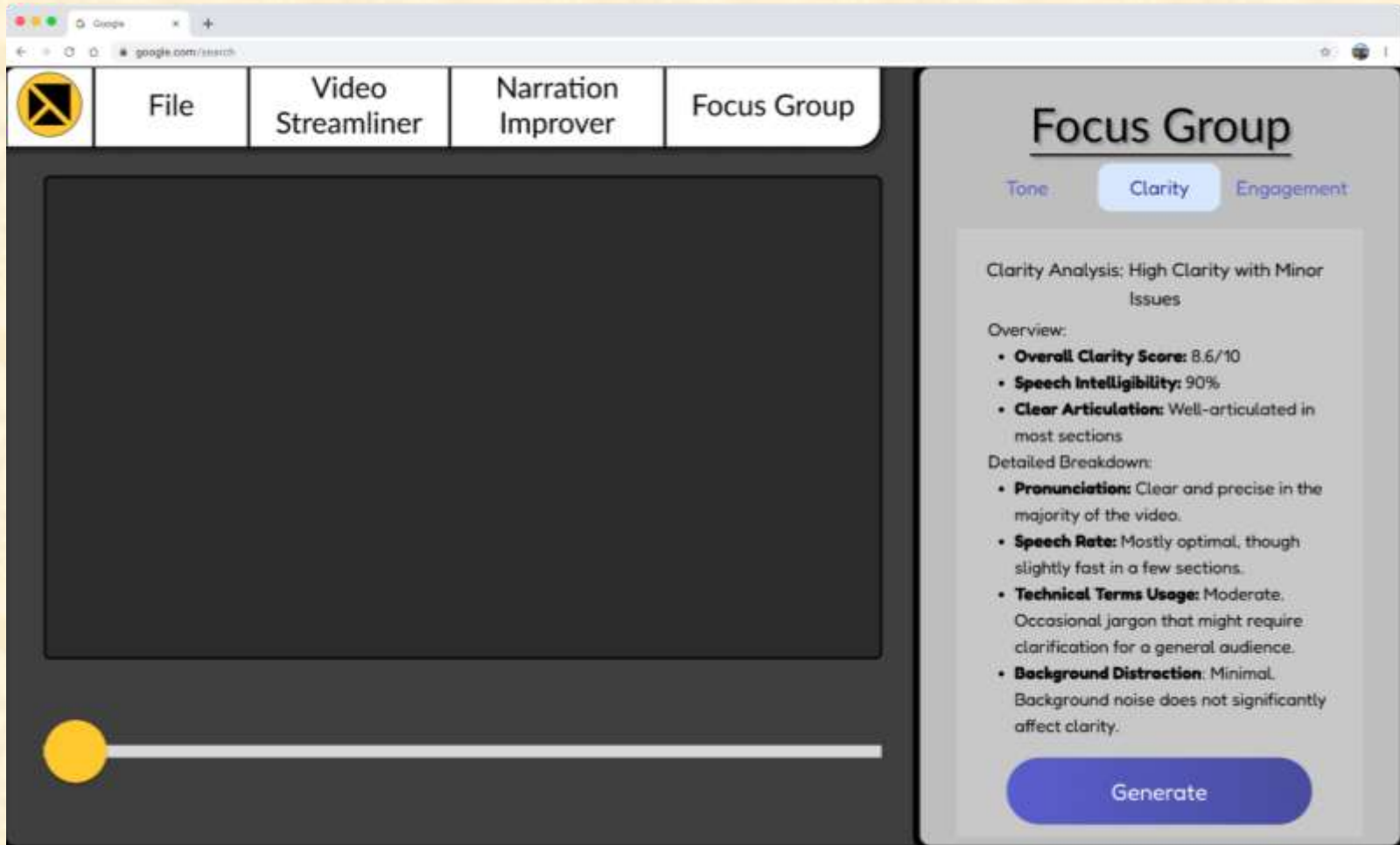
Screen Mockup: Home Page



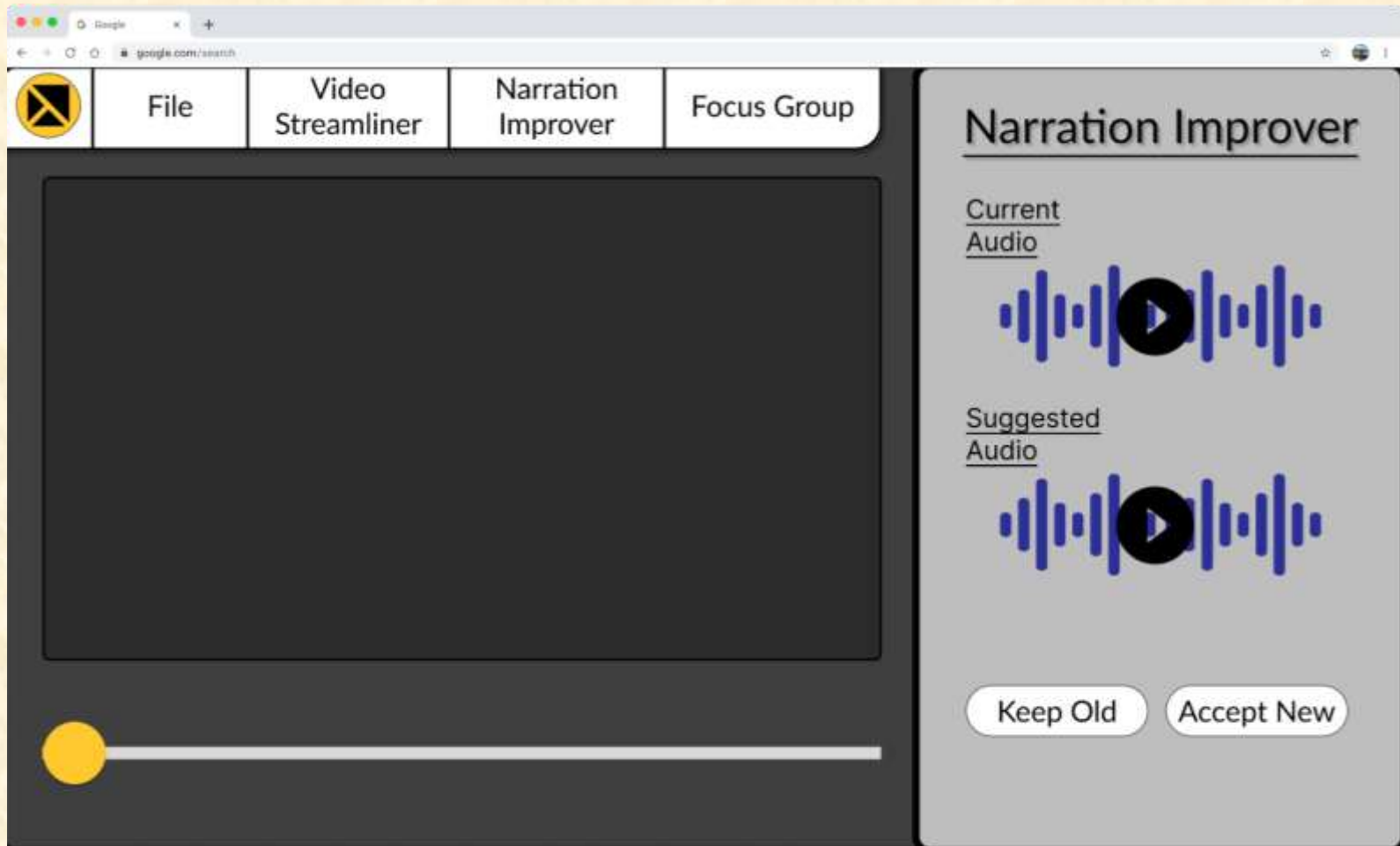
Screen Mockup: Video Streamliner



Screen Mockup: AI Focus group



Screen Mockup: Narration Improver

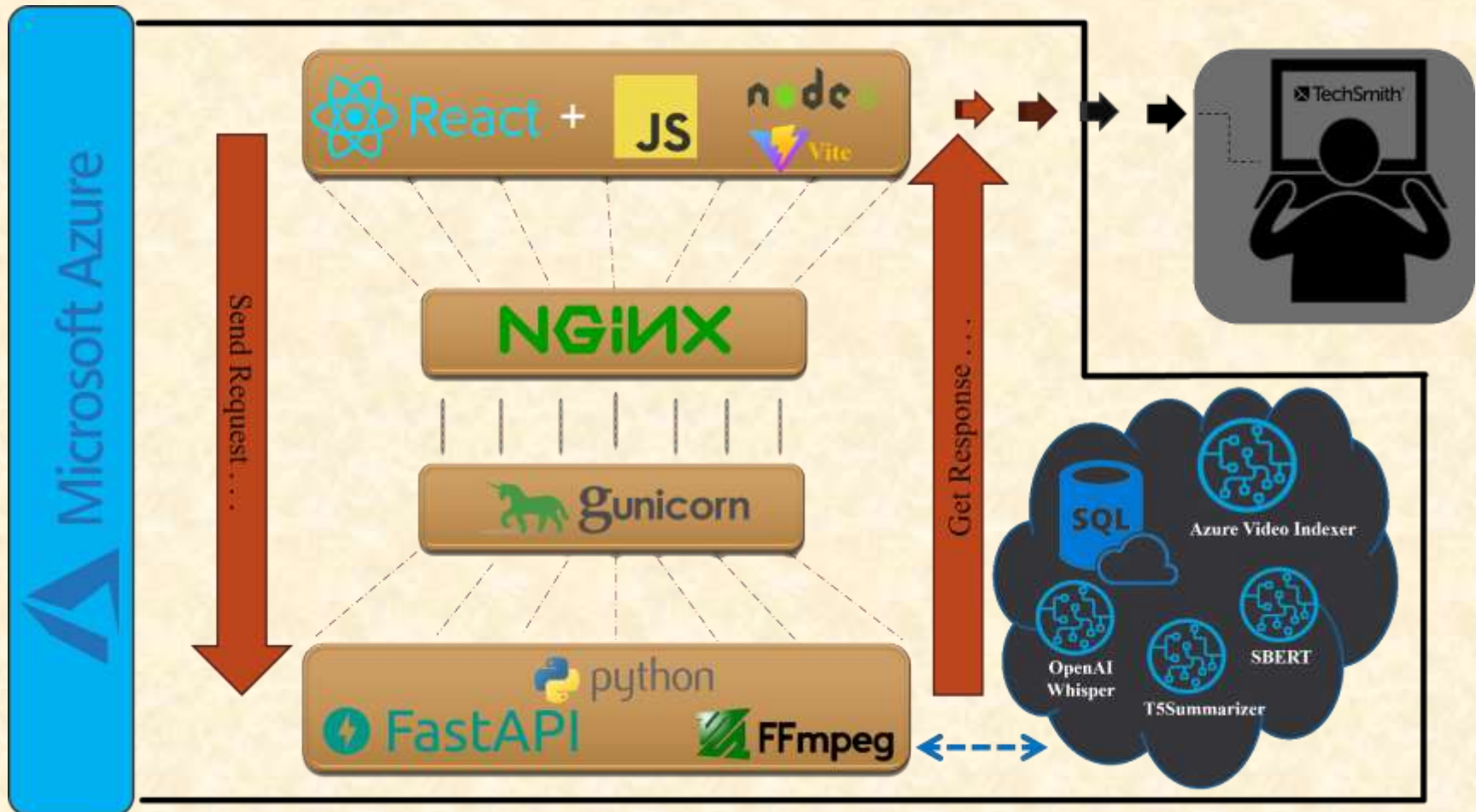


Project Technical Specifications

- Front-end:
 - React + JS
 - Nginx
- Backend
 - FastAPI python framework
 - Gunicorn
- Azure web services
- SQL database
- FFMPEG



Project System Architecture



Project System Components

- Hardware Platforms
 - Azure cloud services
 - Local machines
- Software Platforms / Technologies
 - React with JavaScript
 - FastAPI python framework
 - Azure web services
 - Nginx, Gunicorn web servers
 - SQL database



Project Risks

- Risk 1
 - Cost of Azure services like AI Indexer
 - Exploring alternate options through open-source models; pre-processing on video
- Risk 2
 - Discerning important parts of video
 - Azure AI Video Indexer + OpenAI
- Risk 3
 - Process videos without audio
 - Azure AI Vision studio and indexer
- Risk 4
 - Processing time too long
 - User pre-defined expectations; compressing/sped-up videos



Questions?

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