Project Plan
TechSmith Director

The Capstone Experience

Team TechSmith
Jacob Heisey
Jared Ballance
Pranay Kandru
Kevin Ahn
Joseph Freedman

Department of Computer Science and Engineering
Michigan State University
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Functional Specifications

- Professional video editing is a daunting task
- Eliminate need for software training through voice commands
- Provide seamless, professional video editing for non-media professionals
- Cloud hosted application – accessible via web browser
Design Specifications

• Voice commands producing results in real time
• User login and project management page
• Speech-to-text interface
• Draggable asset options in video editor
• Video timeline
Screen Mockup: Login
Screen Mockup: Project Management
Screen Mockup: Project Editor
Screen Mockup: Video Workspace
Technical Specifications

- Microsoft Azure for Hosting
- Soundcloud API for Audio Assets
- Bing Image Search API for Image Assets
- Microsoft Cognitive Services API for Natural Language Processing
- MySQL Database
- HTML5, CSS3, JavaScript
- ASP.NET Core 2.0 for Web Application Backend
- CreateJS for Video Manipulation in Browser
- React for Frontend UI
System Architecture

- Bing Image Search API
- Microsoft Cognitive Services API
- Soundcloud API
- Microsoft Azure
- TechSmith Director Web Application
- SQL Server
System Components

• Software Platforms / Technologies
  ▪ Microsoft Azure
  ▪ Bing Image Search API
  ▪ Soundcloud API
  ▪ Microsoft Cognitive Services API
  ▪ ASP.NET Core 2.0
  ▪ MySQL Database
  ▪ HTML5, CSS3, JavaScript, CreateJS, React
  ▪ Visual Studio
  ▪ JetBrains Rider
Testing

• Display voice commands – test accuracy
• Rapid prototyping via browser developer tools
• JavaScript test environment - Mocha
• Postman for API calls BEFORE implementing
Risks

• Microsoft Azure Compute Resources
  ▪ Video animation requires appropriate compute allocation
  ▪ Minimize outside API calls – video render in browser via JavaScript

• Video Animation and Playback
  ▪ Provide user with ability to play video in real time
  ▪ Use JavaScript SDKs to render in browser rather than back-end implementation

• Storing Project State
  ▪ Saving status of individual assets – elapsed video sequence
  ▪ Research solutions for saving/loading video – load assets via URL

• Microsoft Cognitive Services API
  ▪ Capabilities? Restrictions? How much data can we feed at once?
  ▪ Research documentation – ‘stress test’ web demonstration against user requests
Questions?