My role in the Senior Design project was primarily focused on the development of the web interface for our innovative karaoke application. This task allowed me to not only apply but significantly expand my technical skills in web development, leveraging technologies such as React, JavaScript, HTML/CSS, and Python Flask. The approach I took was iterative, emphasizing incremental development and rigorous testing, which was instrumental in enhancing the functionality and user experience of our application. Engaging with individuals outside the project for user testing was a strategy that proved to be invaluable, enabling me to identify and rectify bugs effectively and efficiently. My journey through this project was marked by notable successes, including the ability to access and utilize extensive resources and the achievement of creating a user interface that was both functional and visually appealing, particularly with the integration of audio waveforms. However, the project was not without its challenges. The integration of the computer vision component and audio processing component presented technical hurdles. Additionally, developing an application that was consistent across different operating systems was challenging, given the differences between Mac and Windows environments, which occasionally led to unexpected user interface issues.