Code Review

- Use a more appropriate hashing function. SHA-256 is a general purpose hashing function. Bycrpy is more suitable is it is designed specifically for hashing passwords (strong security against brute force attacks)

- Validate the input coming from the JSON file before processing it.

- Implement error handling in the code to handle exception that might rise from file reading, database operations and authentication process.

- While processing the audio data, output some logging statements to track the process of handling audio and locate any potential issues.

- Following the "Separation of Concerns" principle, it would be better to modularize the logic in function audio_processing into more than 1 function.

- Provide better secret key security by avoiding hardcoding it into the code. It should be in an environment variable or generating a strong random key using secrets.token_hex() and changing it periodically to ensure further security like this timedelta(days=10)