Peer Review

Describe the project in a few sentences. This should NOT be a review, but just a description of the problem that the project tackles, their solution, and a summary of the results obtained.

This project focuses on audio-visual prediction for the off-road navigation of an autonomous vehicle. The goal is to predict the terrain characteristics using the vehicles front facing camera in a self-supervised way. A training dataset consisting of 45 minutes of video and audio was used to model the relationship between the visual from the camera and the audio signals.

List and justify at least two strong aspects of the project.

- Use of Various Audio Filtering Methods.
- Using audio as a way of predicting terrain type is very ingenious.

List and justify at least two lacking aspects of the project.

The network struggles to capture the full variations in the audio signals; this information loss can lead to less accurate classification.

Limited details on the terrain classification process.

List at least three questions to the project team.

Could you elaborate on how you get your patch projections?

Once you have identified the terrain type, how do you plan to integrate this information into the vehicle's navigation system?

What evaluation metrics do you use to measure how effective your models are?

How feasible would it be to implement your method for real-time terrain classification?