Alpha Presentation
Data-Driven Mechanic: Applications and Infrastructure
The Capstone Experience
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Project Overview

• Develop iOS and Android apps to collect audio and accelerometer data of vehicles for collection of data and classification
• Ability to annotate the collected data for training of algorithms
• Ability to classify the data using previous trained algorithms and display the results to users
System Architecture
Home Screen

iOS

Android
Recording Screen

iOS

Android
Annotate Screen

iOS

Android
Annotate Submitted Screen

iOS

Android
Classify Screen

iOS

Android
What’s left to do?

• Consistent UI across platforms
• Integrate classification model to the app
• Form validation
• Same-page dynamic dropdown options
• Send the following to back end
  • Acceleration File
  • Annotation Labels
  • Device Unique ID
• Pausing recording
• Token authentication of HTTP requests to back end
• Migrate back end from local to remote
Questions?
End of slide show, click to exit.
Device Unique Identifier

- Client requested a tool to be used in the future to aid in identifying malicious data
- Team Risk
  - Description: Finding a unique identifier to send to the back end without a login
  - Mitigation: Expo has many modules and APIs to gather information about the current device