SMART RESPONSE

Problem to Be Solved?

Introduction

Smart Response is an app designed for quick and reliable response. Allows 911 operators or city of hamilton to look at crash demographics as well as update on incidents in real time

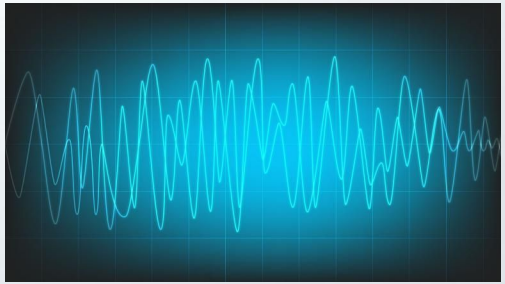
REAL TIME

Allows data coming in from the city of hamilton to be analyzed in real time

Hamilton

SIGNAL PROCESSING

Process and analyze digital sounds coming in directly from the city of hamilton



HYPOTHETICAL SCENARIO

Let's say there is an accident in the city of hamilton at night no one is around to call in for the accident and both drivers are unconscious.

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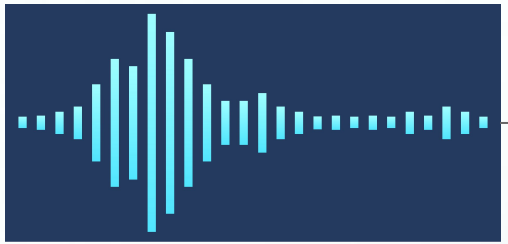

Sound Analyzer

- Identifies Sound
- Finds location
- Snapshots an Image

HYPOTHETICAL SCENARIO

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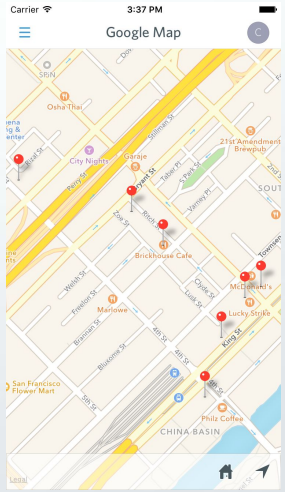
Sends the data to an app

Type of Incident



PROCESSING SOUND

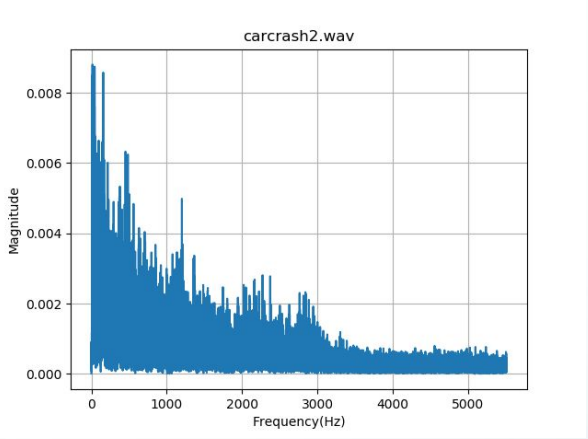
Technologies used:

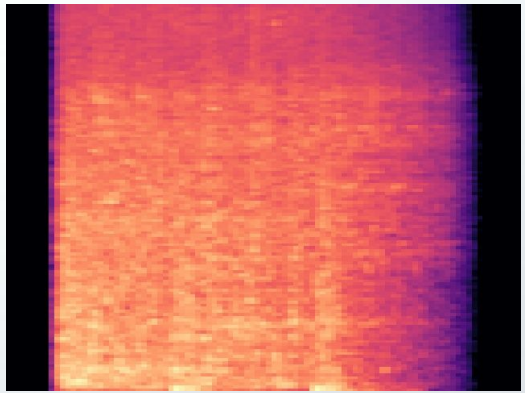
- Course Knowledge from Signals and Systems

TensorFlow

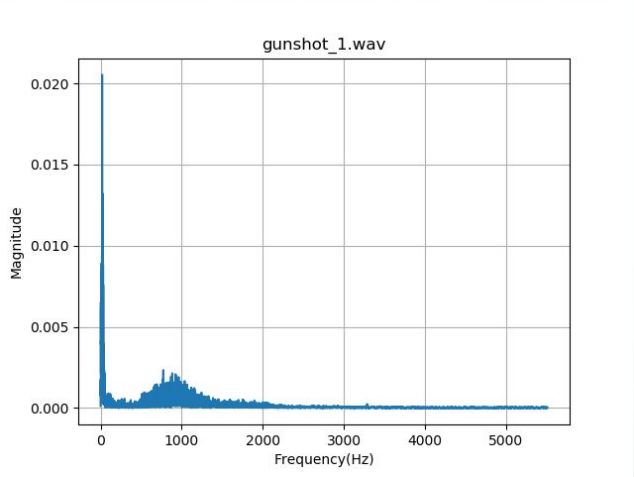
OpenCV

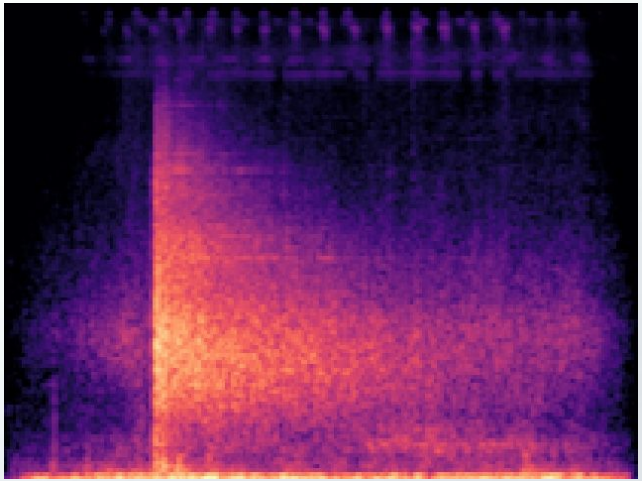
PROCESSING SOUND



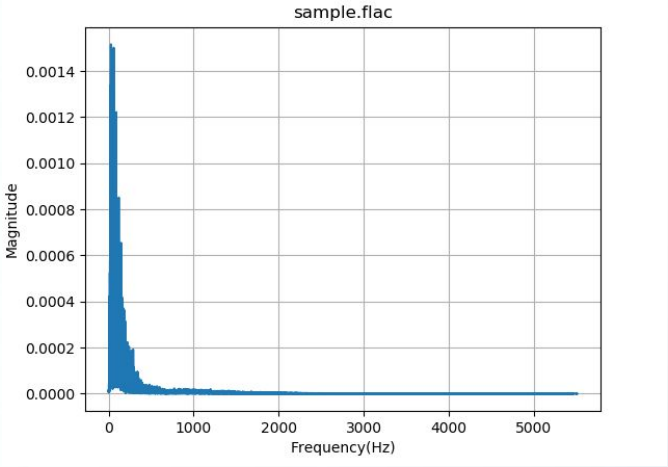


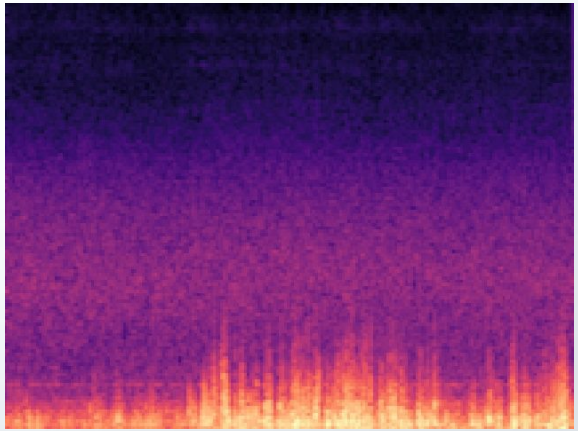
PROCESSING SOUND





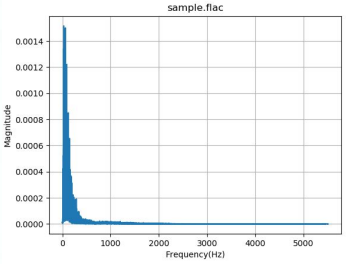
PROCESSING SOUND



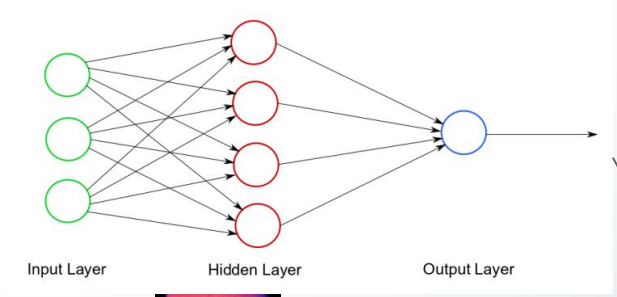


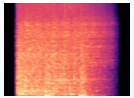
Machine Learning

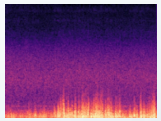
Supervised Learning

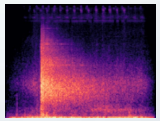


Neural Network









```
The predicted class is: drilling

air_conditioner                 :  0.32110649347305297851562500000000
car_horn                  :  0.00000022923920539597020251676440
children_playing                :  0.00001040843835653504356741905212
dog_bark                  :  0.00000026054382828988309483975172
drilling                  :  0.66649377346038818359375000000000
engine_idling             :  0.00000000133662025891823077472509
gun_shot                  :  0.00000043437574959170888178050518
jackhammer                :  0.01238841470330953598022460937500
siren           :  0.00000000002891160748308418959596
street_music              :  0.00000000528942090127770825347397
```

Front-end and Back-end

Technologies used:

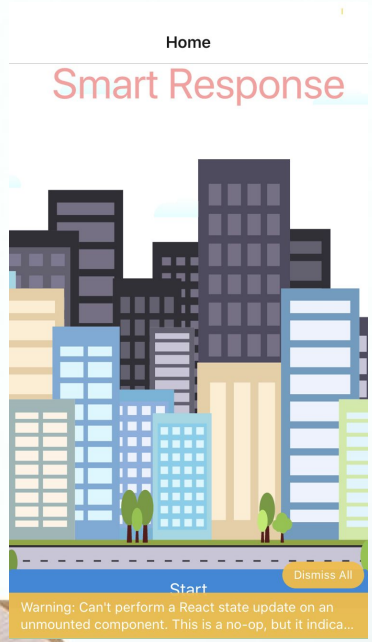
Expo

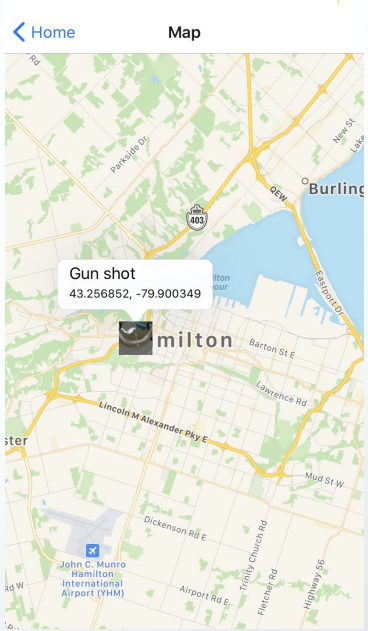
React Native

node

PostgreSQL

APP - DEMO


Home
Smart Response
Start
Dismiss All
Warning: Can't perform a React state update on an unmounted component. This is a no-op, but it indica...


Home
Map
Gun shot
43.256852, -79.900349
milton
Barton St E
Lawrence Rd
Lincoln M Alexander Pky E
Mud St W
Dickenson Rd E
John C. Munro Hamilton International Airport (YHM)
Airport Rd E
Trinity Church Rd
Fletcher Rd
Highway 56
Burling
403