PiùPiù

Music Recognition Software

Gabrielle Corbett / Ben Miroglio / Jack Norman

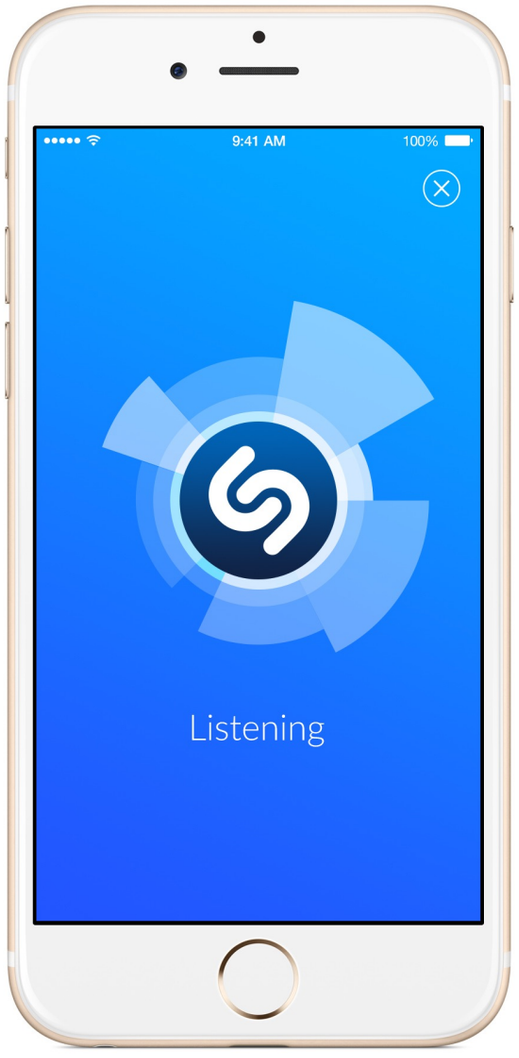
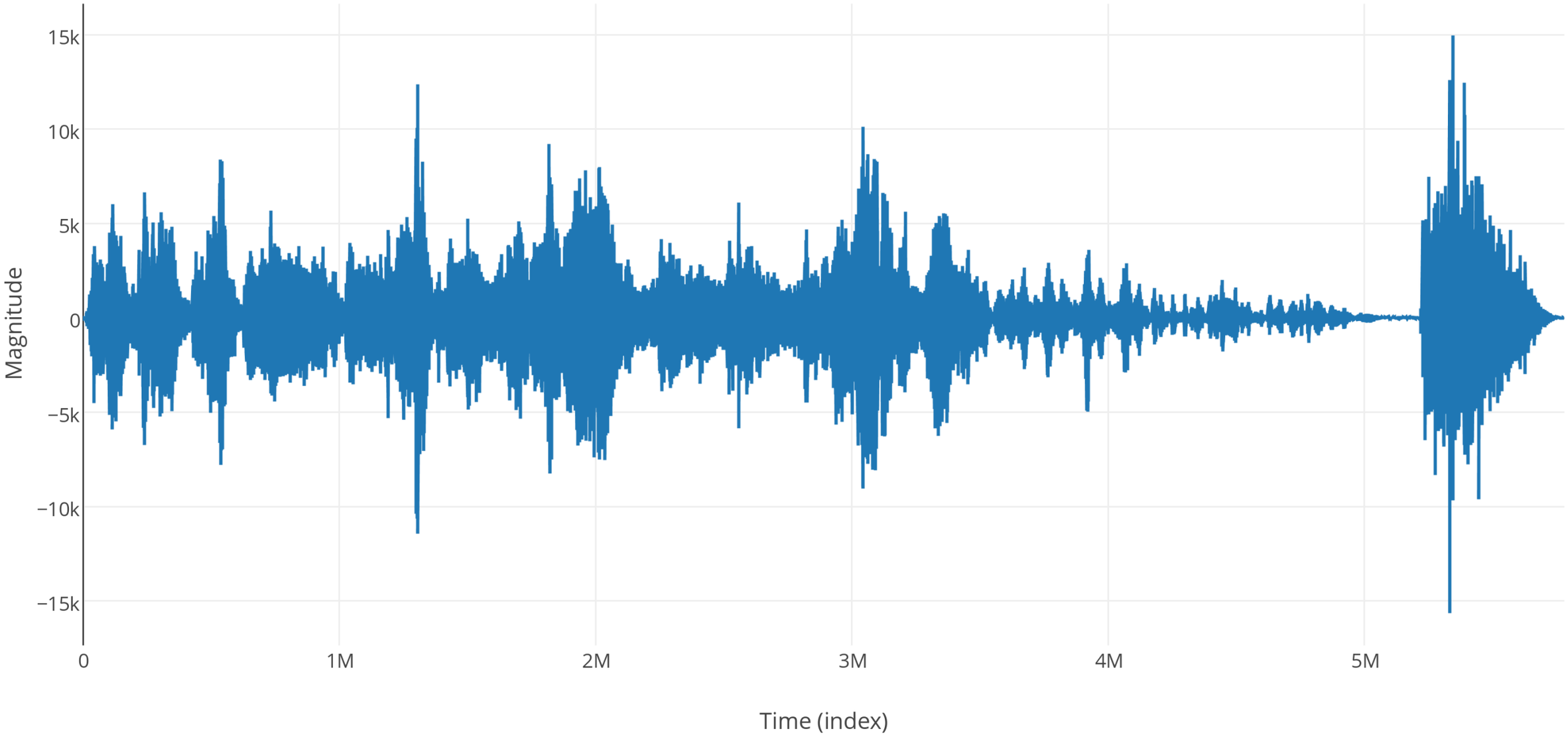


image source: https://brandfolder.com/s/o3ss78-awrlgo-dlpoi8

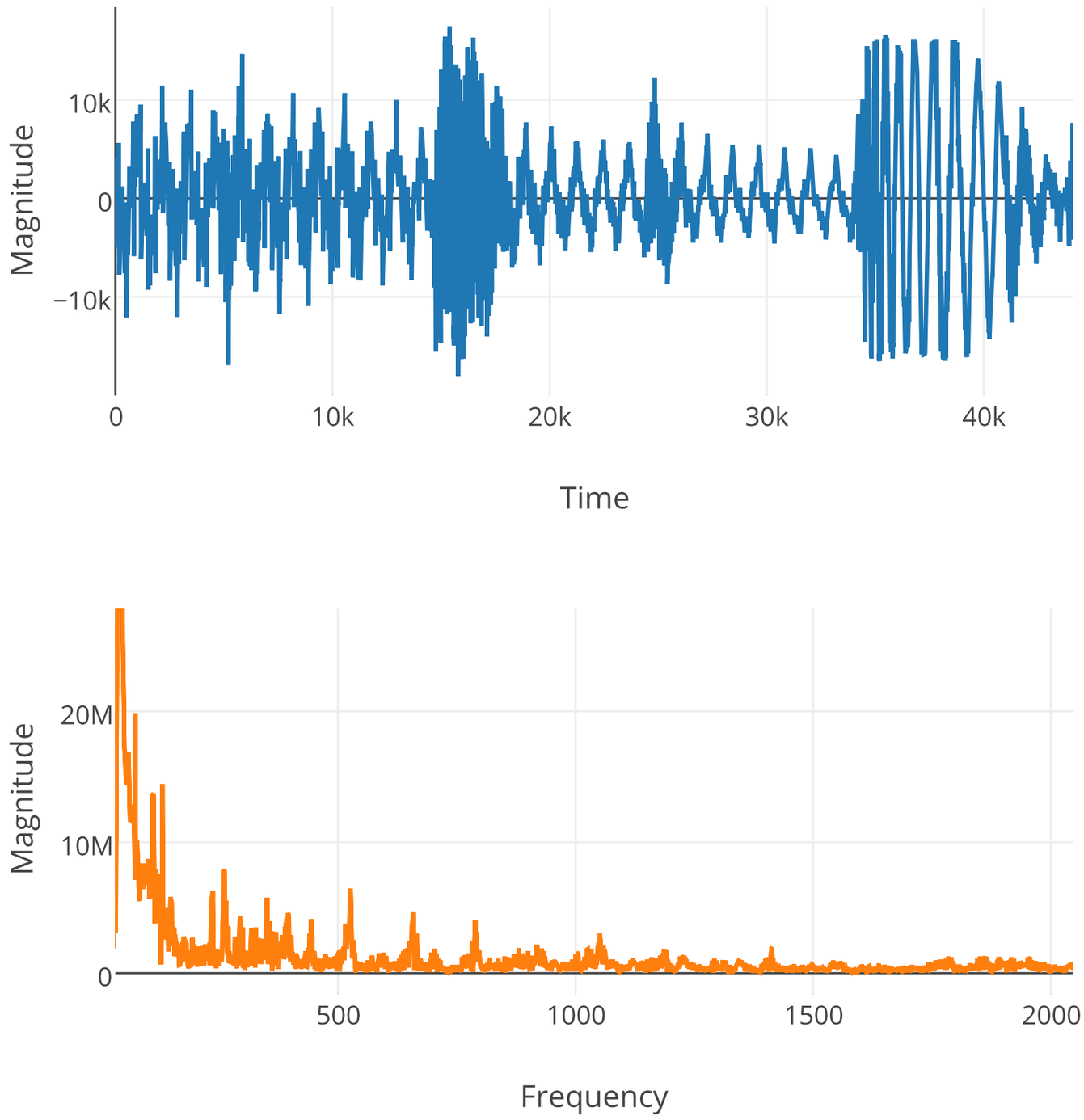
Demo

So how’d we do that?

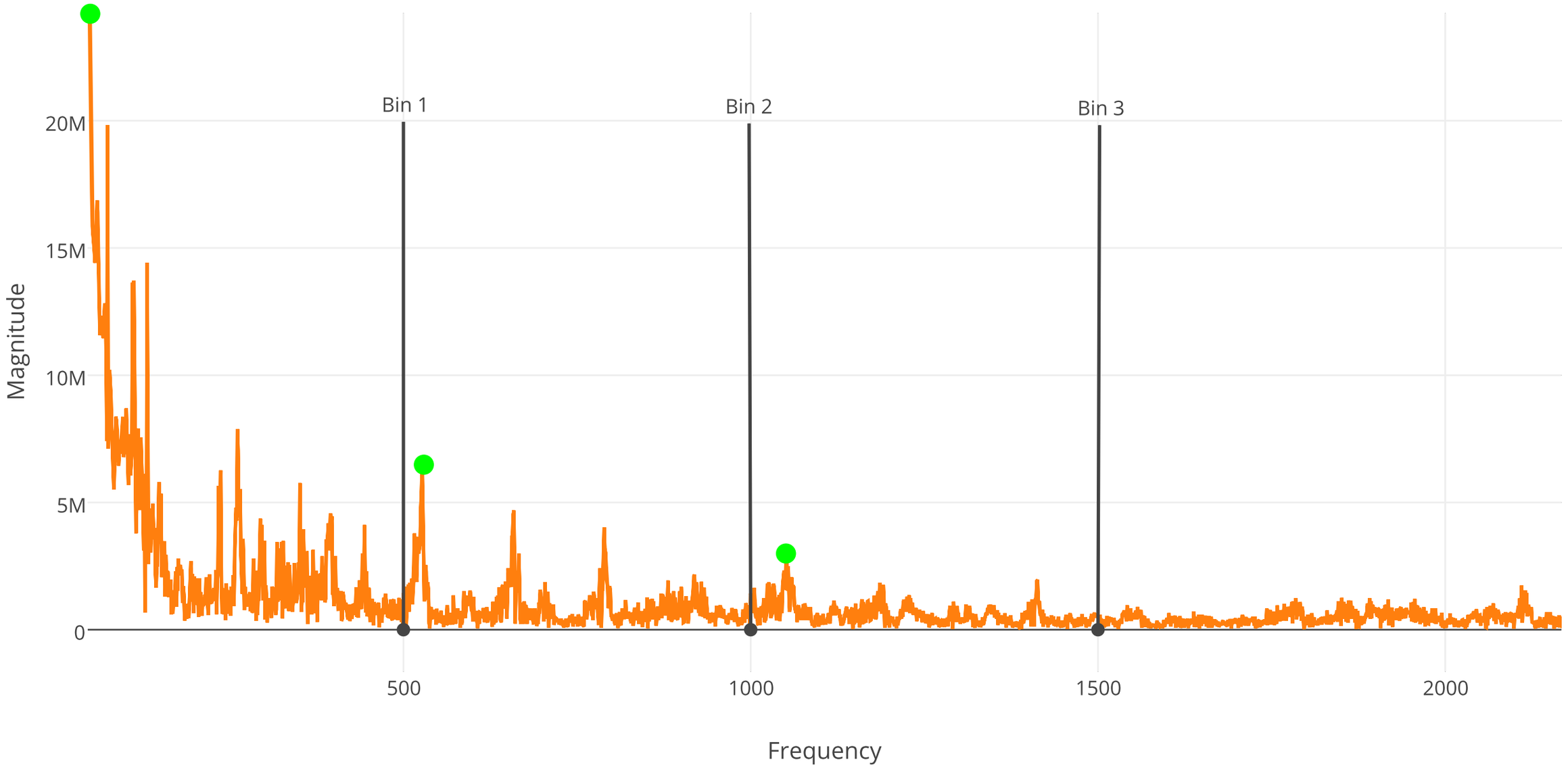
Magnitude vs Time



FFT Demonstration



FFT Plot



Hash type: `[0,500,1000,1500]`

Key: `[20, 579, 1098]`

How we hash..

```
key: [bin1 max, bin2 max, bin3 max]
value : [song id, index in song]
```

Hash Example

```
[20, 579, 1098] = [[ae49, 22100], [ae49, 22101],
                   [ae49, 22102], [ae49, 22120],
                   [8b6a, 10000], [f5c2, 44210], …]

[305,781,1302] =  [[ae49, 22899], [ae49, 22890],
                   [ae49, 66820], [fe32, 10078],
                   [fe32, 10078], [gd13, 29851], …]

…
```

Make a prediction if...

1. We've listened for at least 5 seconds
2. Proportion of matches > threshold
3. We haven't listened for more than 15 seconds

Results

Starting at a random second: **100%**

Starting at a random index: **91%**

Improvements

New method that incorporates the time the match is the song

Thanks!

See below for contact details

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