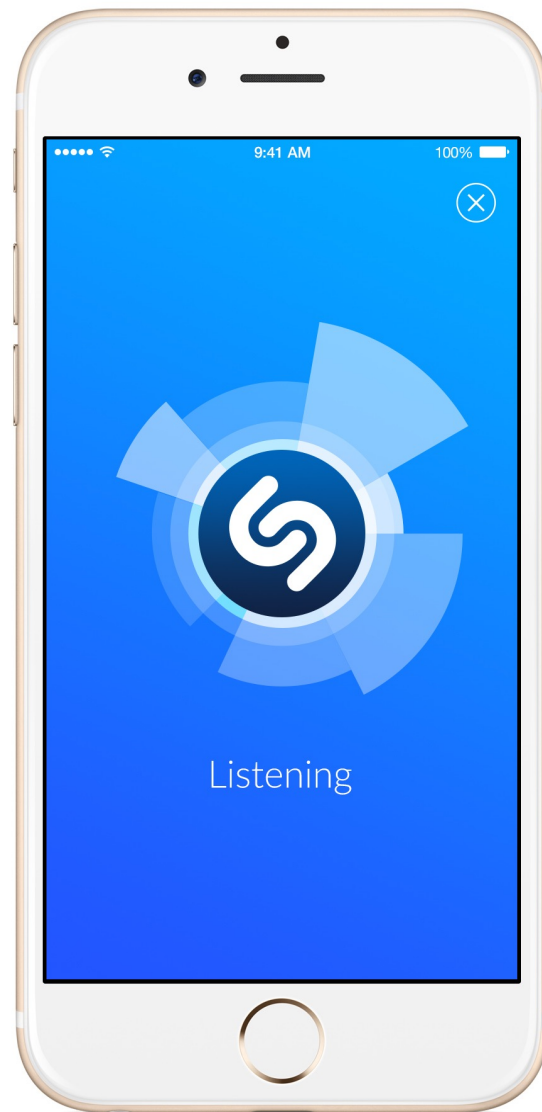


PiùPiù

Music Recognition Software

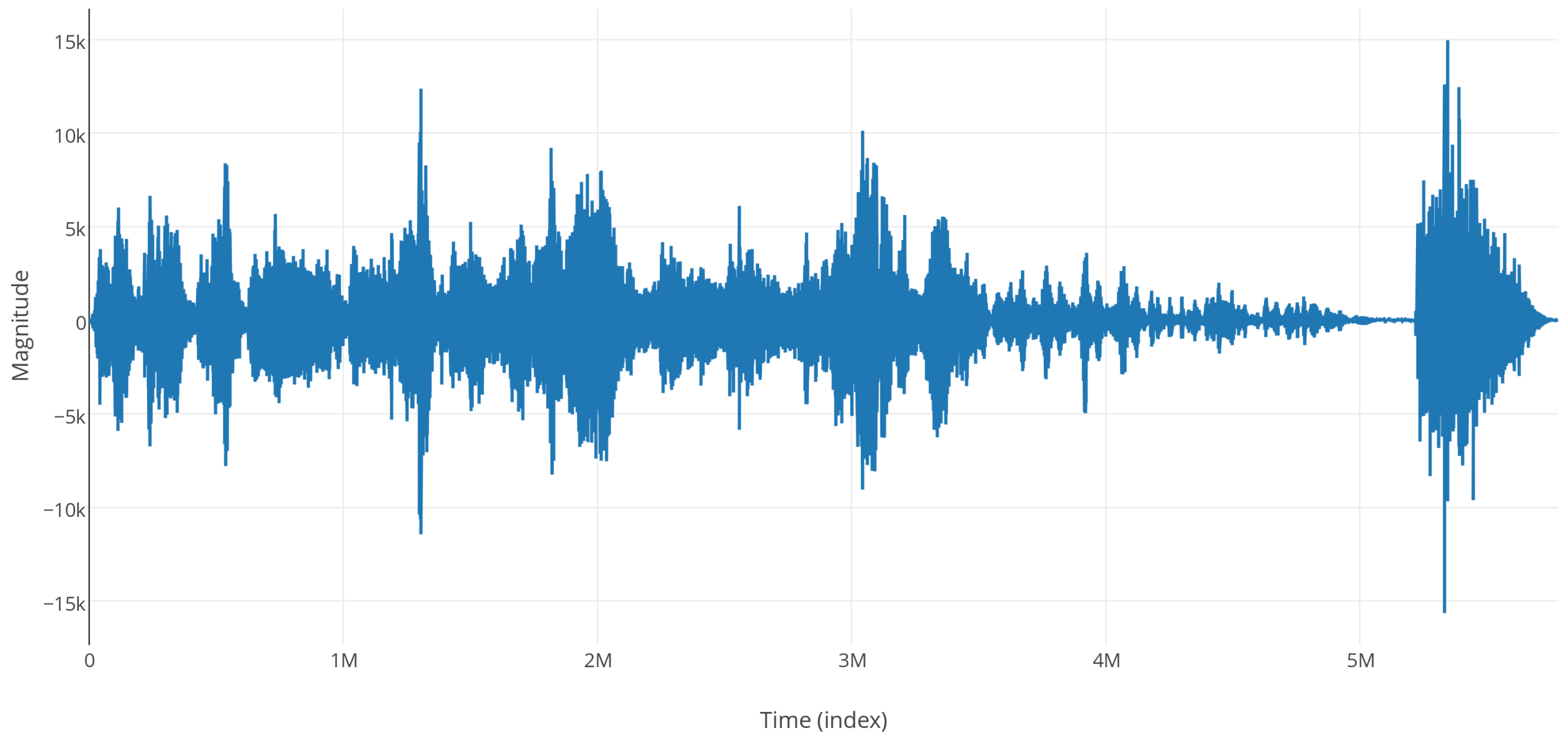
Gabrielle Corbett / Ben Miroglio / Jack Norman



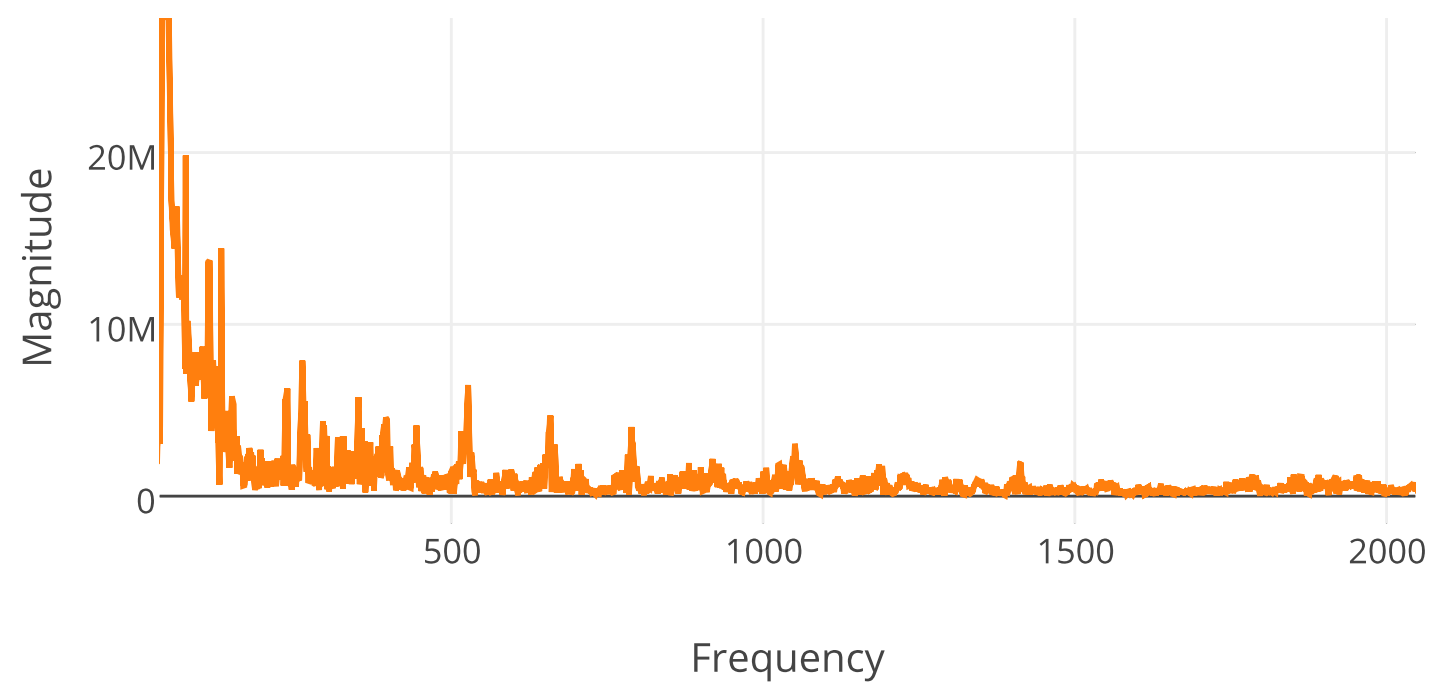
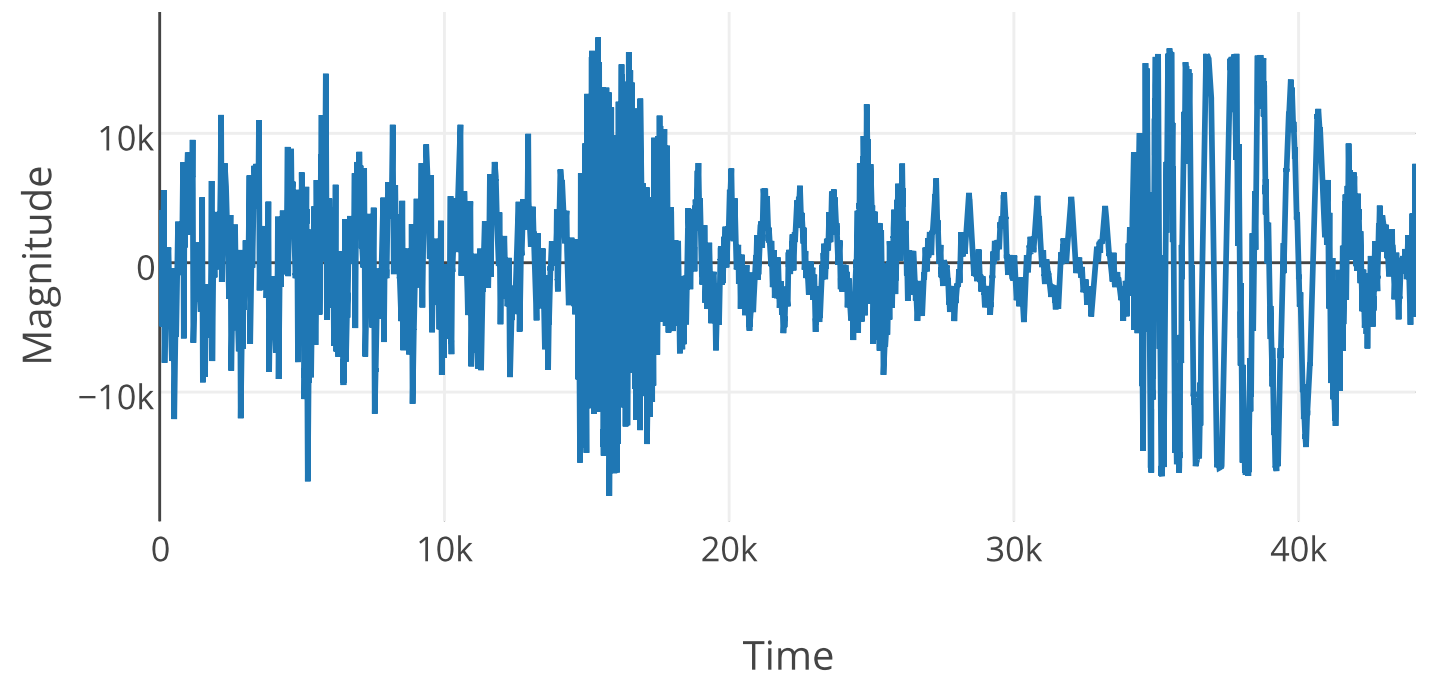
Demo

So how'd we do that?

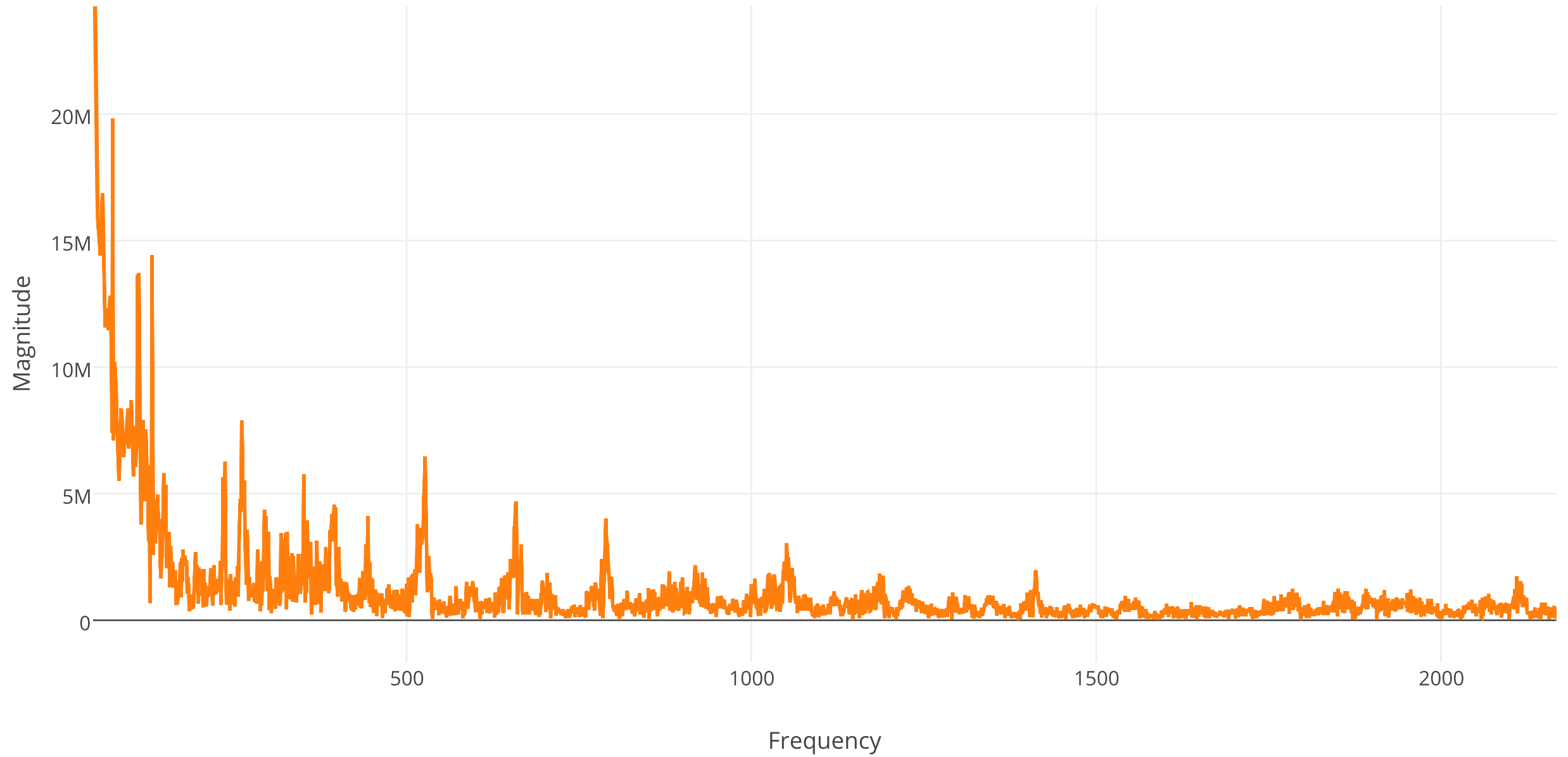
Magnitude vs Time



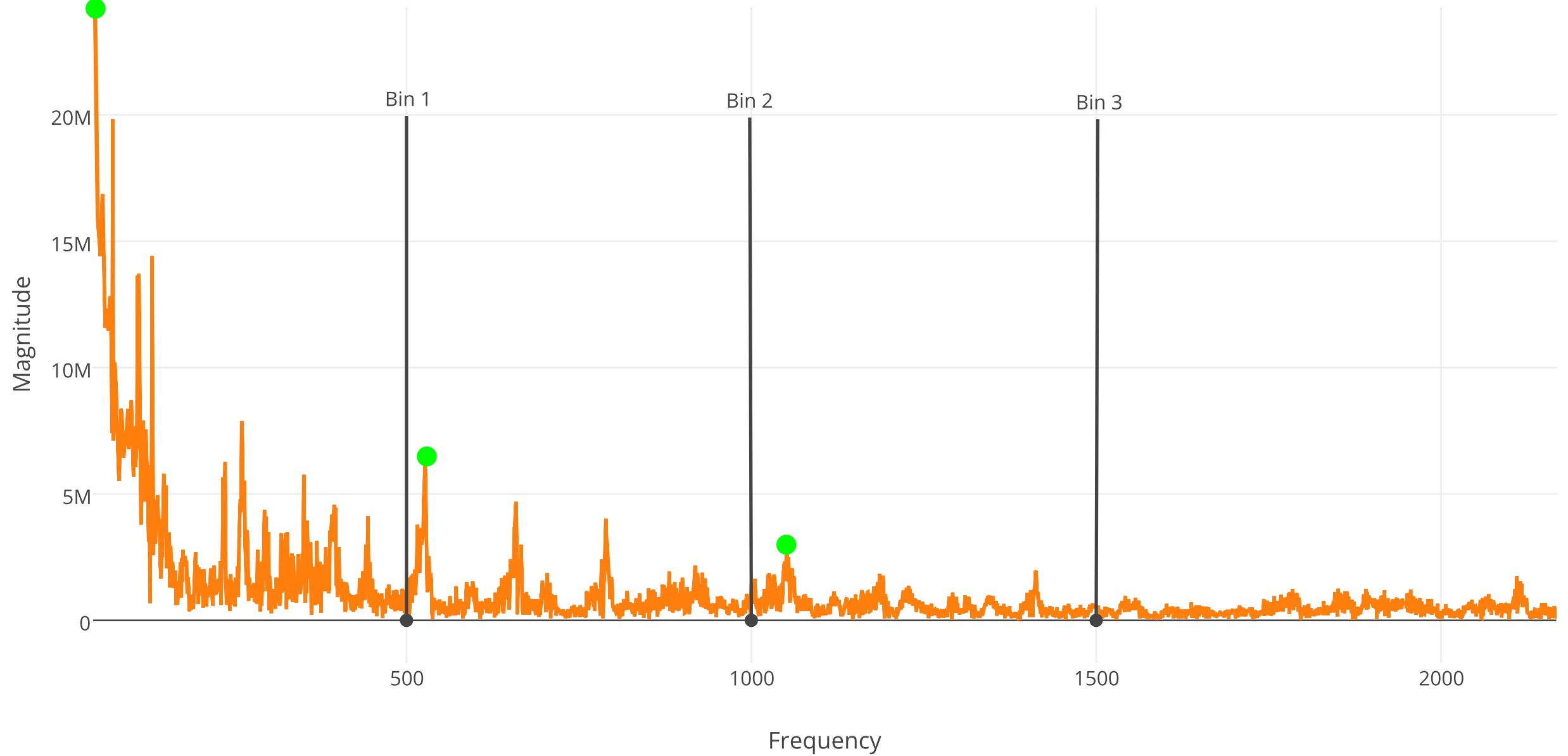
FFT Demonstration



FFT Plot



FFT Plot



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

How we hash..

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

Hash Example

$[20, 579, 1098] = [[\text{ae49}, 22100], [\text{ae49}, 22101],$
 $[\text{ae49}, 22102], [\text{ae49}, 22120],$
 $[\text{8b6a}, 10000], [\text{f5c2}, 44210], \dots]$

$[305, 781, 1302] = [[\text{ae49}, 22899], [\text{ae49}, 22890],$
 $[\text{ae49}, 66820], [\text{fe32}, 10078],$
 $[\text{fe32}, 10078], [\text{gd13}, 29851], \dots]$

...

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

Make a prediction if...

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

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

Improvements

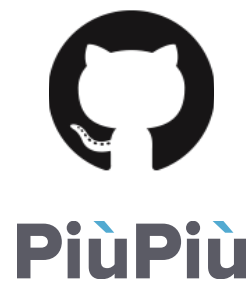
New method that incorporates the time
the match is the song

Thanks!

See below for contact details



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