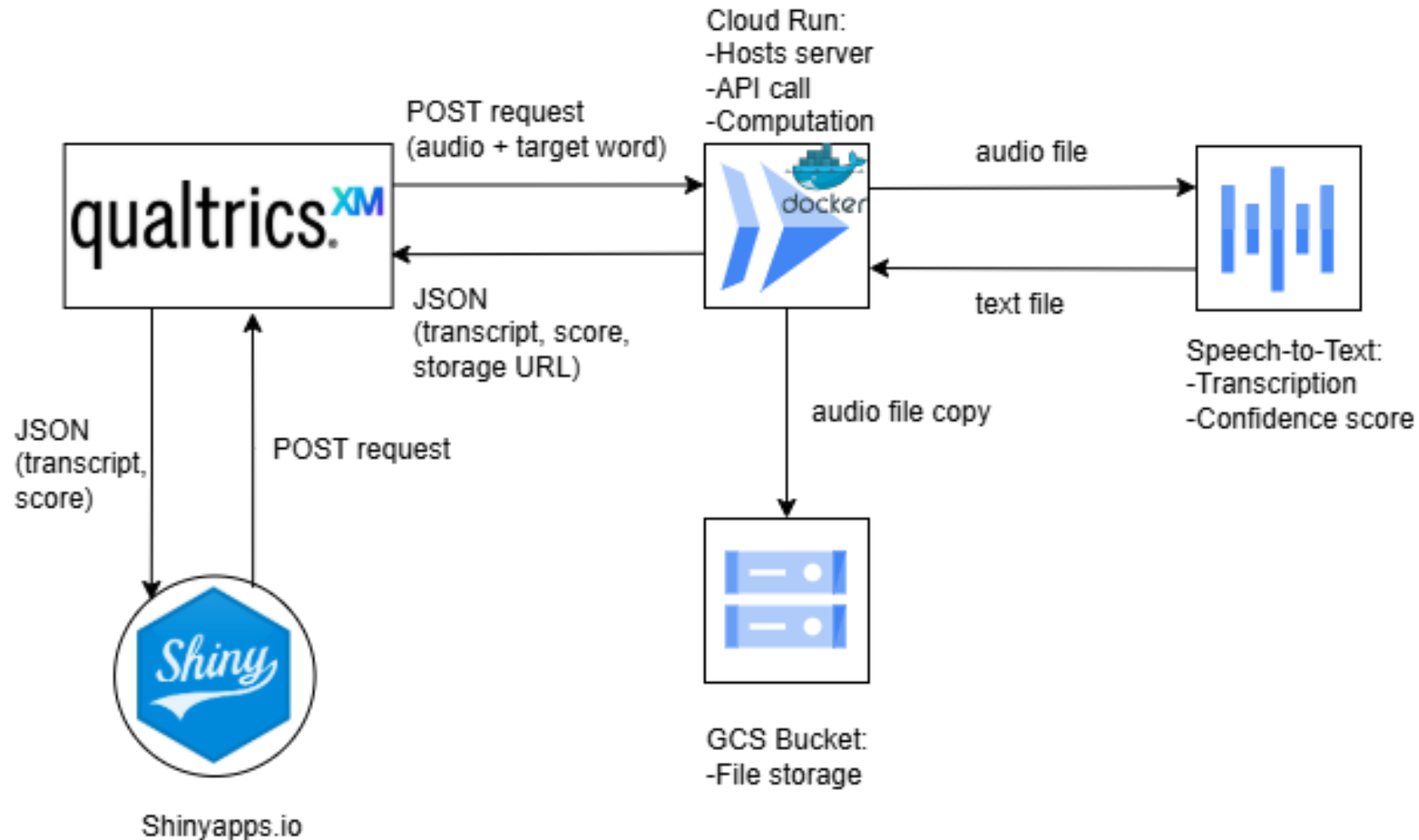


# Realtime Audio-based Survey Response Processing Project

Jay Kim

# Back End: Data Pipeline



# Proximity Score Calculation

- Levenshtein Distance (insertion, deletion)

- $(1 - \text{levDistance} / \text{maxLen}) * 100$

"i said apple" vs "apple"

$1 - 0.444 = 0.556$  (55.6% similar)

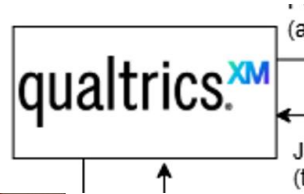
"cat" vs "dog"

$1 - 1.0 = 0$  (0% similar)

|   |   | k                 | i                 | t                 | t                 | e                 | n                 |
|---|---|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
|   | 0 | 1                 | 2                 | 3                 | 4                 | 5                 | 6                 |
| s | 1 | <u>1</u><br>..... | 2                 | 3                 | 4                 | 5                 | 6                 |
| i | 2 | 2                 | <u>1</u><br>..... | 2                 | 3                 | 4                 | 5                 |
| t | 3 | 3                 | 2                 | <u>1</u><br>..... | 2                 | 3                 | 4                 |
| t | 4 | 4                 | 3                 | 2                 | <u>1</u><br>..... | 2                 | 3                 |
| i | 5 | 5                 | 4                 | 3                 | 2                 | <u>2</u><br>..... | 3                 |
| n | 6 | 6                 | 5                 | 4                 | 3                 | 3                 | <u>2</u><br>..... |
| g | 7 | 7                 | 6                 | 5                 | 4                 | 4                 | <u>3</u><br>..... |

# Front End

Press the record button and say his name.



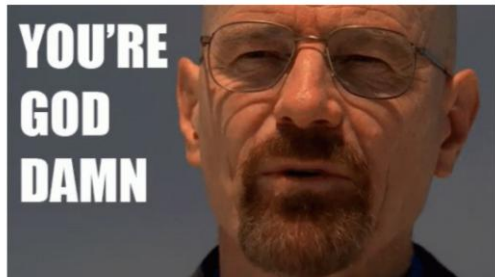
I think you said: *You haven't said anything yet*

Start Recording Stop Recording

Ready to record

$PS > 0.9$

Bingo!



$PS \leq 0.9$

Whaaat??



## Survey Response Dashboard

Controls

Select Survey: SM727 BB survey

Refresh Data

Total responses: 8

Word Cloud Options

Max Words:

Min Frequency:

Transcript Word Cloud

eisenberg  
apple  
heisenberg  
mber



ProximityScore Distribution

