

How to Make a Good First Impression

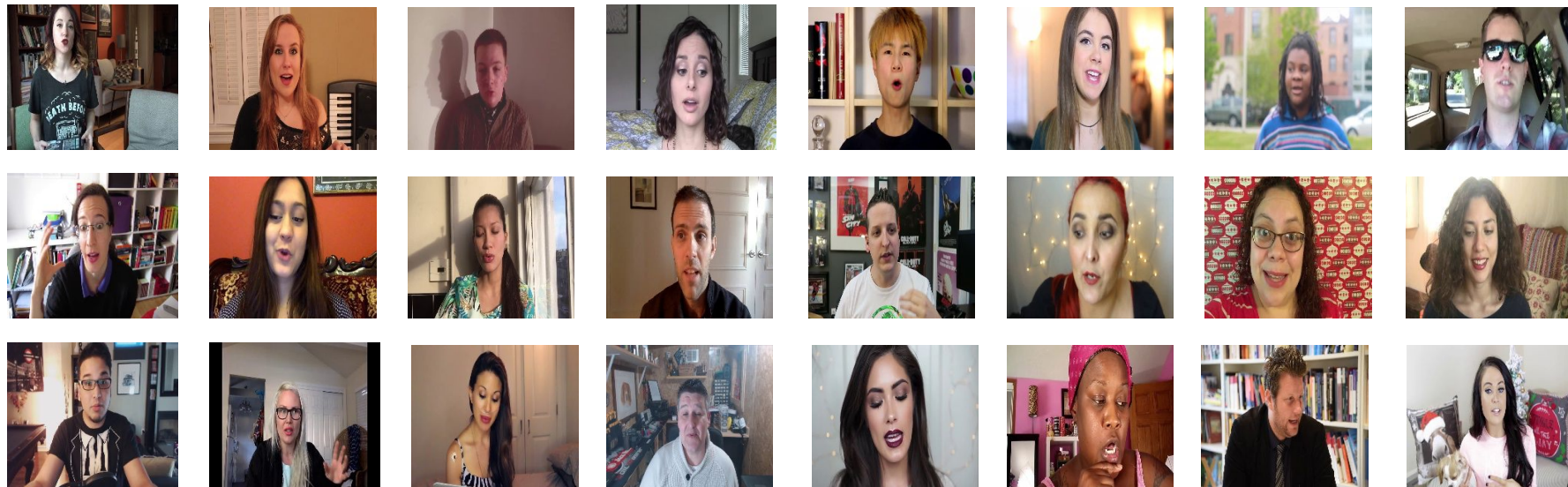
Mattie Terzolo

You Have Already Answered 3 Questions About Me

- 1) Do you like me?
- 2) Do you trust me?
- 3) Do I remind you of anyone you know?

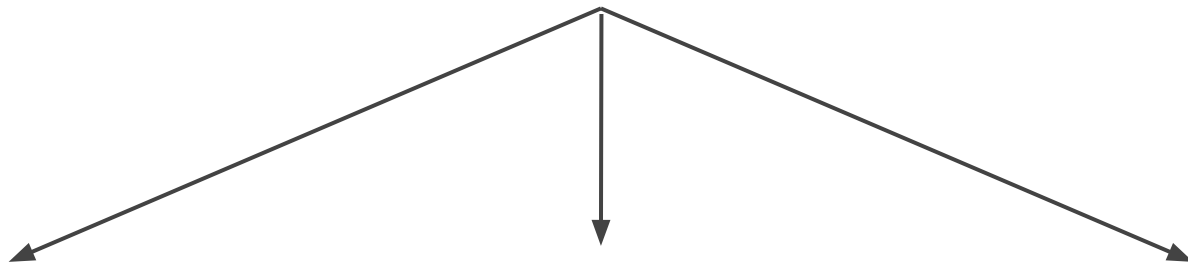
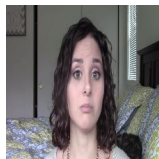
Can we build a model to quantify how good first impression is?

First Impressions V2 (CVPR'17) Data Set

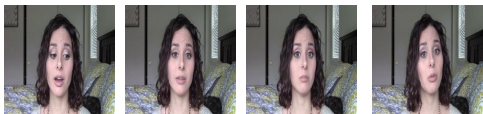


Let's Break Down the Problem

Mp4 file



Images



Audio



Text (Words)

"Ewe. But yeah, some people
been asking me if I still like..."

Image Model

Input Data

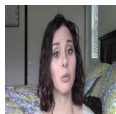
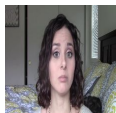
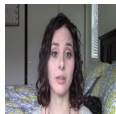
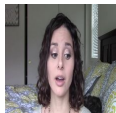
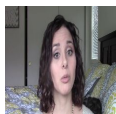
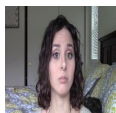
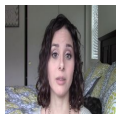
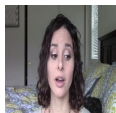


Image Model

Input Data



Transfer Learning

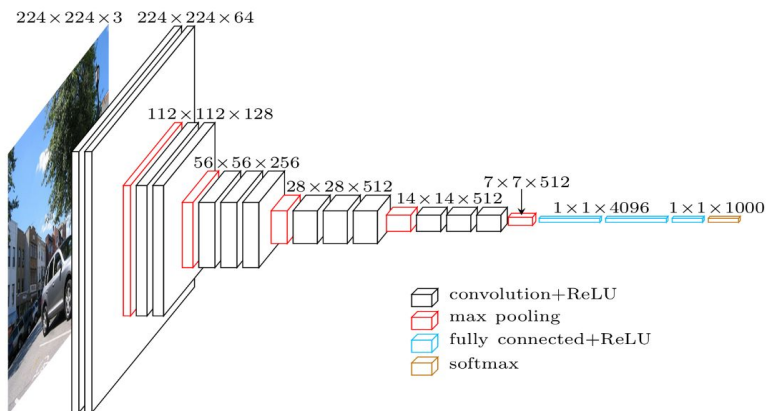
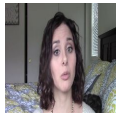
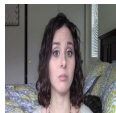
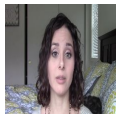
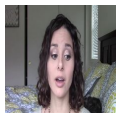


Image Model

Input Data



Transfer Learning

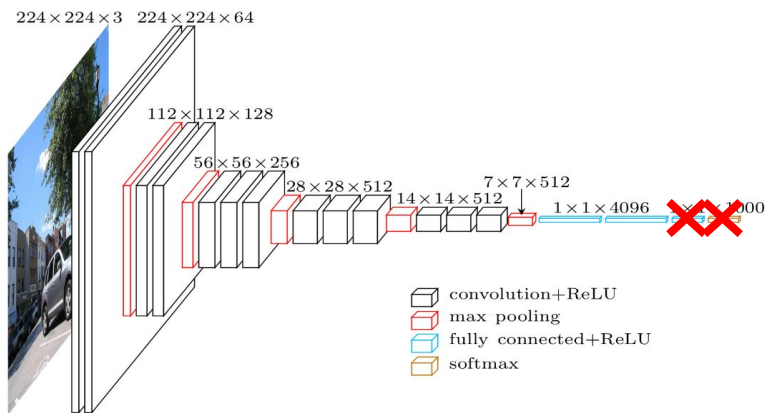
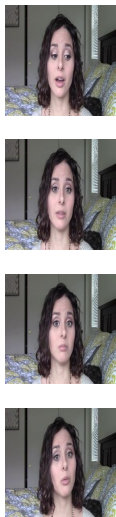
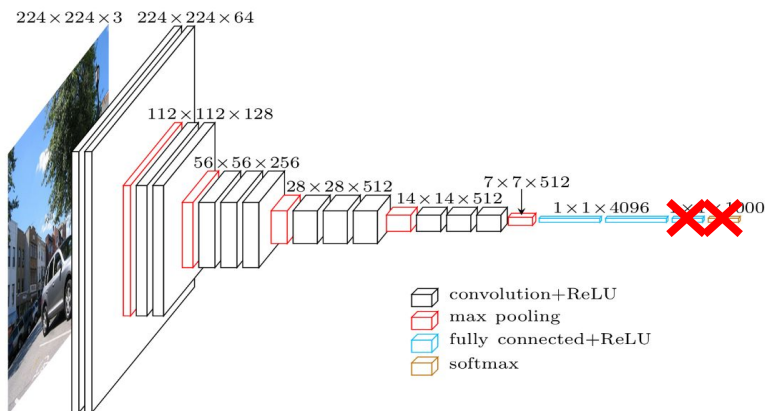


Image Model

Input Data

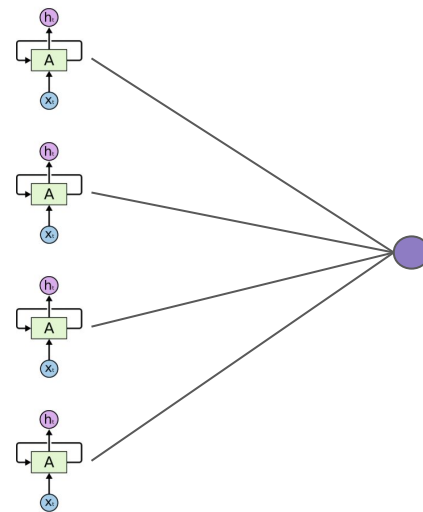


Transfer Learning



LSTM

Output Layer



Audio Model

Mp3 files



Audio Model

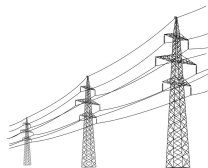
Mp3 files



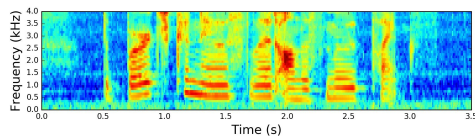
Spectral Flatness



Root Mean Square
Energy



MFC Coefficients



Audio Model

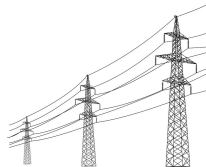
Mp3 files



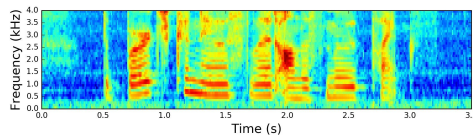
Spectral Flatness



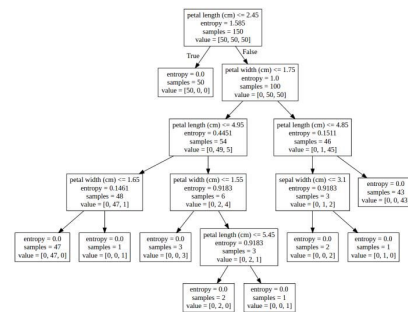
Root Mean Square Energy



MFC Coefficients



Random Forest Model



Text Model

Transcripts

```
('Ewe. But yeah, some people been '  
'asking me if I still like One '  
"Direction. Yes. I'm still like in "  
'love with One Direction. Have you '  
"heard they're like...")
```

Text Model

Transcripts

```
('Ewe. But yeah, some people been '  
'asking me if I still like One '  
"Direction. Yes. I'm still like in "  
'love with One Direction. Have you '  
"heard they're like...")
```



Tokens

```
['ewe', 'but', 'yeah', 'some', 'people',  
'been', 'asking', 'me', 'if', 'still',  
'like', 'one', 'direction', 'yes',  
'still', 'like', 'in', 'love', 'with',  
'one', 'direction', 'have', 'you',  
'heard', 'they', 're', 'like']
```

Text Model

Transcripts

```
('Ewe. But yeah, some people been '  
'asking me if I still like One '  
"Direction. Yes. I'm still like in "  
'love with One Direction. Have you '  
"heard they're like...")
```



Tokens

```
['ewe', 'but', 'yeah', 'some', 'people',  
'been', 'asking', 'me', 'if', 'still',  
'like', 'one', 'direction', 'yes',  
'still', 'like', 'in', 'love', 'with',  
'one', 'direction', 'have', 'you',  
'heard', 'they', 're', 'like']
```



Indices for Word Embedding

```
[113618, 33, 12722, 78, 68, 42, 1707,  
170, 88, 151, 87, 45, 2108, 3602, 151,  
87, 1, 746, 8, 45, 2108, 21, 43, 997,  
32, 1235, 87]
```

Text Model

Transcripts

```
('Ewe. But yeah, some people been '  
'asking me if I still like One '  
"Direction. Yes. I'm still like in "  
'love with One Direction. Have you '  
"heard they're like...")
```



Tokens

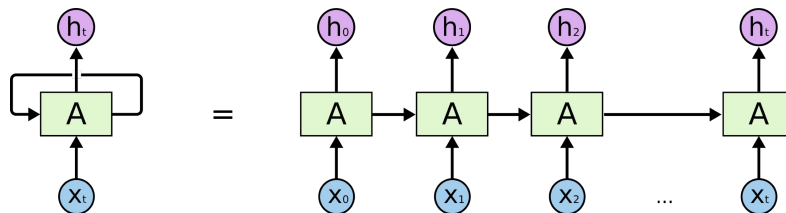
```
['ewe', 'but', 'yeah', 'some', 'people',  
'been', 'asking', 'me', 'if', 'still',  
'like', 'one', 'direction', 'yes',  
'still', 'like', 'in', 'love', 'with',  
'one', 'direction', 'have', 'you',  
'heard', 'they', 're', 'like']
```



Indices for Word Embedding

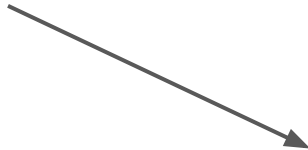
```
[113618, 33, 12722, 78, 68, 42, 1707,  
170, 88, 151, 87, 45, 2108, 3602, 151,  
87, 1, 746, 8, 45, 2108, 21, 43, 997,  
32, 1235, 87]
```

LSTM



Bring It All Together

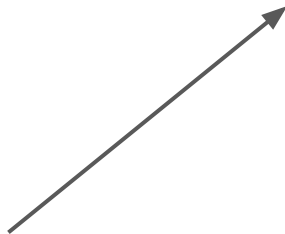
Image Model
Predictions



Audio Model
Predictions



Text Model
Predictions



OLS Model



Final Prediction

Bring It All Together

Image Model
Predictions

0.130

Audio Model
Predictions

0.131

Text Model
Predictions

0.134

OLS Model

0.118

Guess-the-average
Baseline

0.151

Final Prediction

Example Video Demo



Example Video Demo



Overall Score

.46

Image Score

.47

Audio Score

.46

Text Score

.52

Example Video Demo



Example Video Demo



Overall Score

.57

Image Score

.54

Audio Score

.50

Text Score

.58

How This Can Help?

- 1) Job Seekers

How This Can Help?

- 1) Job Seekers
- 2) Recruiting Teams

How This Can Help?

- 1) Job Seekers
- 2) Recruiting Teams
- 3) Anyone else who needs to make a good first impression

Thank you



Find me at:



github.com/mterzolo



linkedin.com/in/mattie-terzolo



mattie.terzolo@gmail.com