







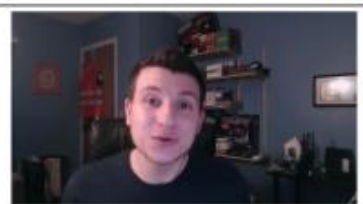
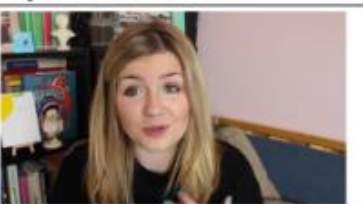






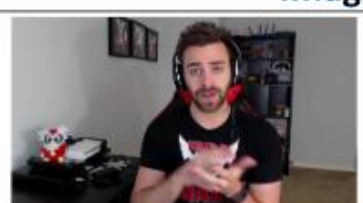





Motivation

You never get a Second Chance to Make a First Impression!



Big Five Personality Traits

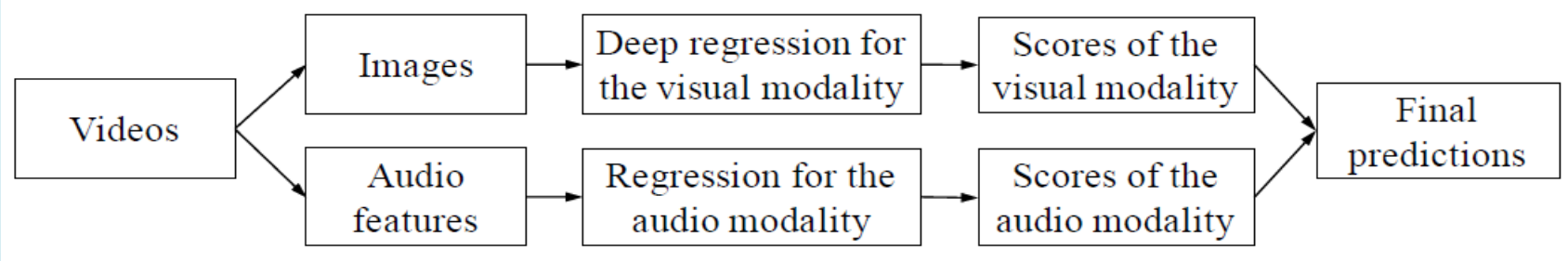
Agreeableness			
Authentic		Self-interested	
			
0.9230	0.9340	0.1098	0.0879
Conscientiousness			
Organized		Sloppy	
			
0.9708	0.9514	0.0873	0.1068
Extraversion			
Friendly		Reserved	
			
0.9158	0.9252	0.0521	0.0933
Neuroticism			
Comfortable		Uneasy	
			
0.9585	0.9791	0.1005	0.0872
Openness			
Imaginative		Practical	
			
0.9777	0.9582	0.0549	0.1113

Bimodal Regression Model for Personality Inference in Making First Impression

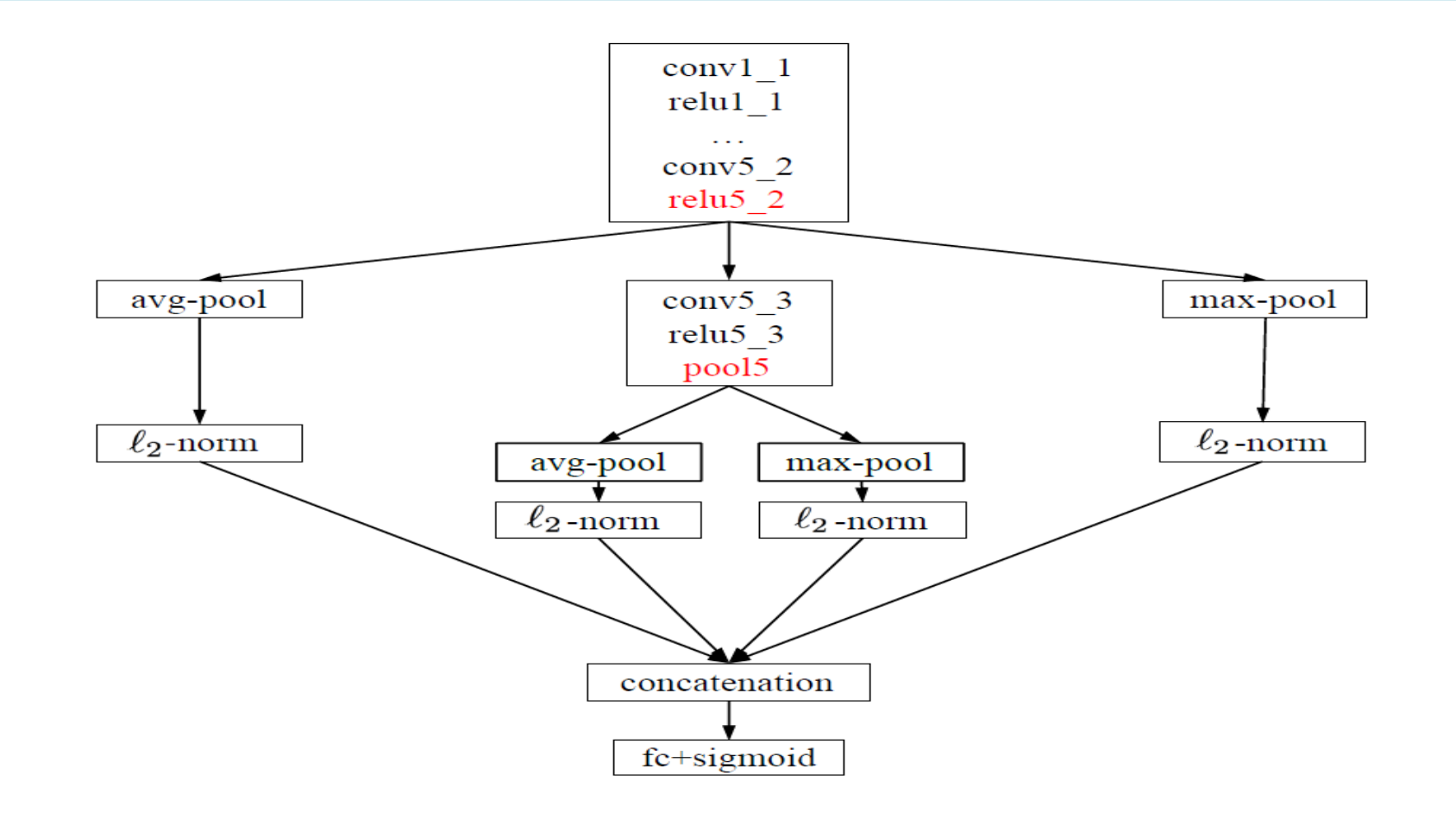
Zhenxun Zhuang

Framework

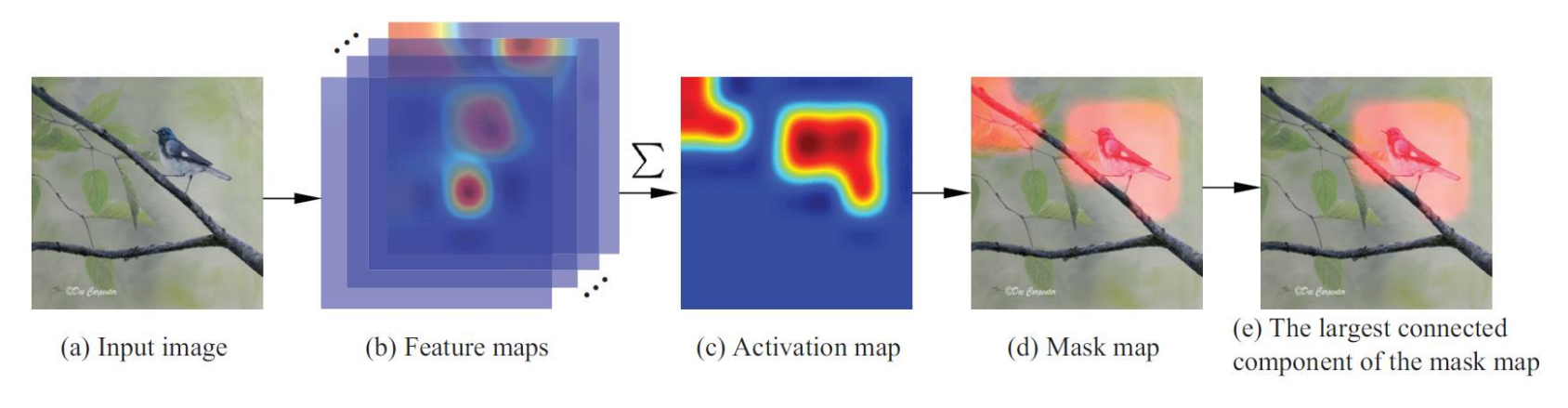
Videos = Images + Audios



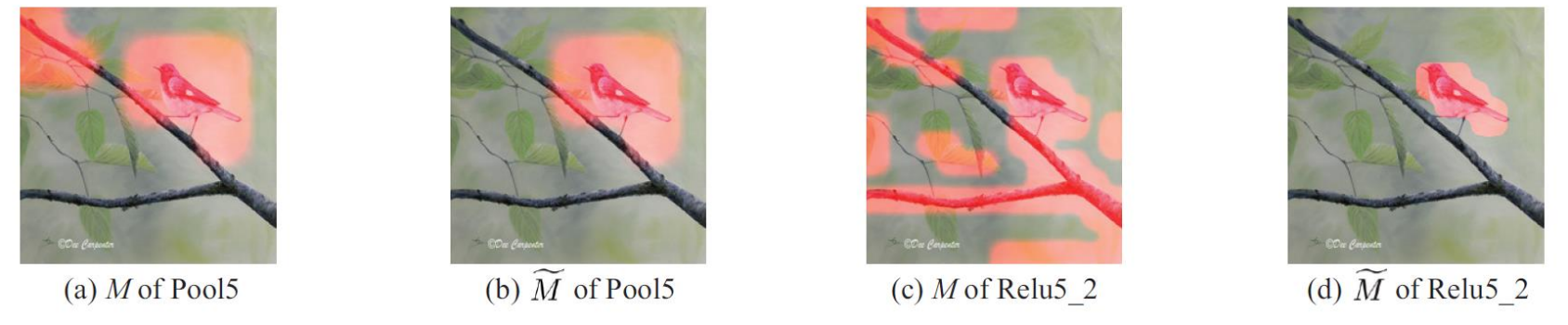
Visual Modality:



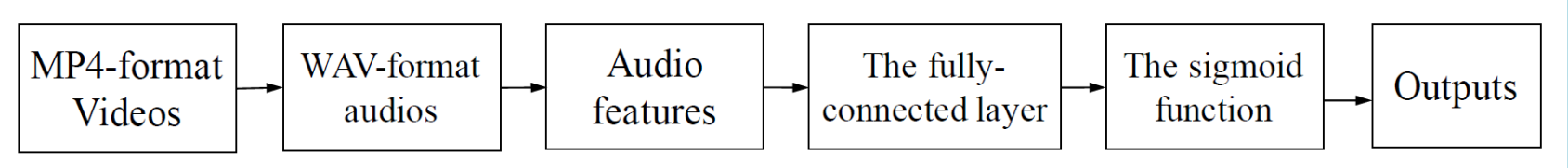
Why DAN



Why DAN+

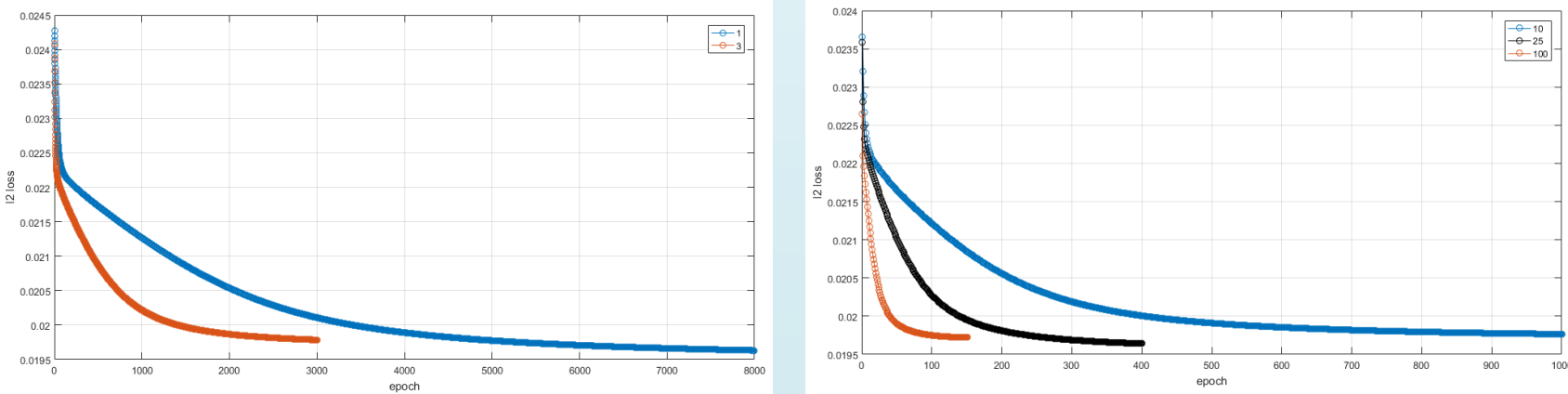


Audio Modality:

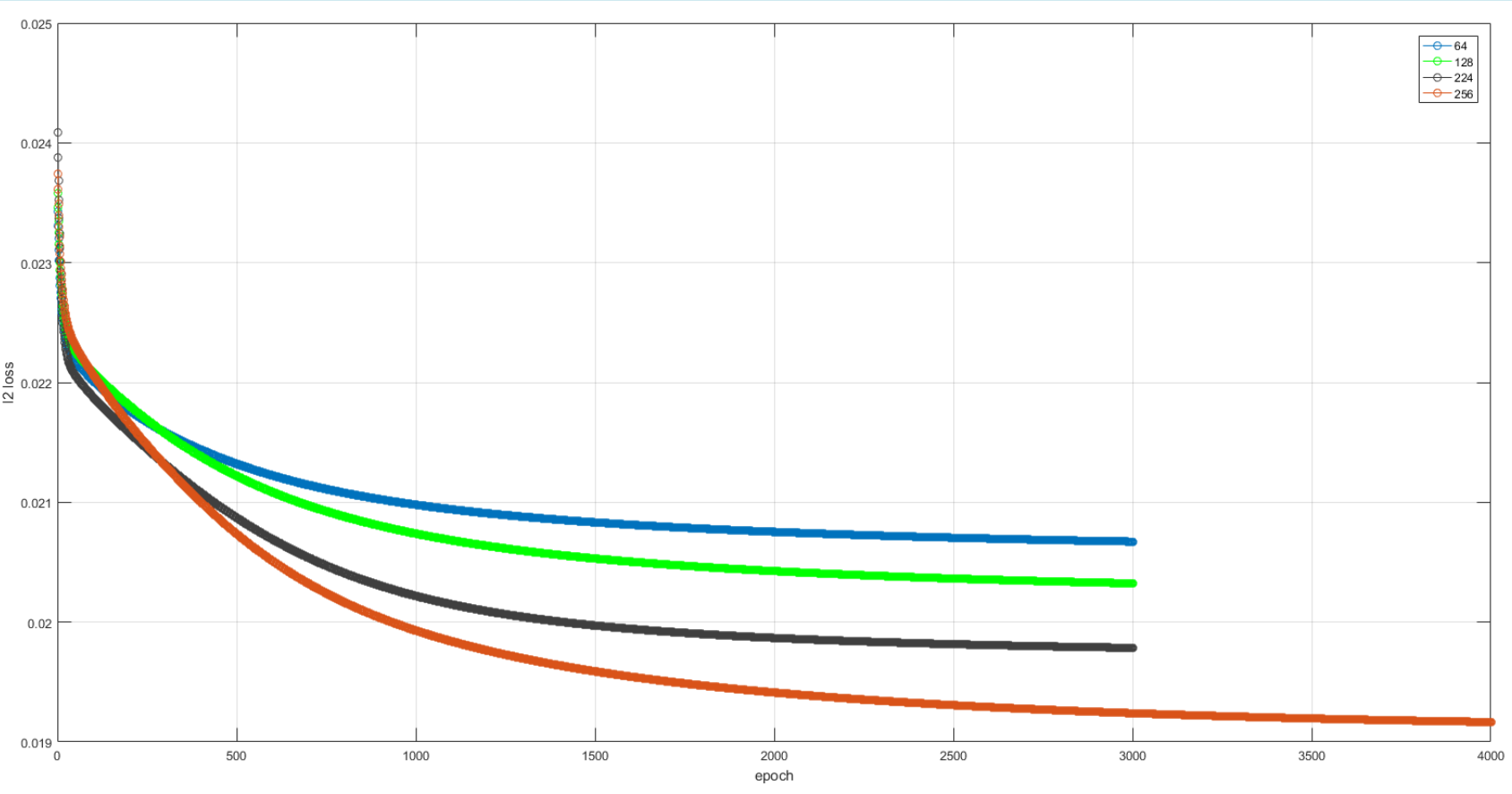


Experiments

How many frames should we extract from each video?



What if we apply our networks to different scales of input images?



Which audio representation should we use?

Feature	Mean Accuracy	Extraversion	Agreeableness	Conscientiousness	Neuroticism	Openness
Log_Filter_Bank	0.8806	0.8792	0.8934	0.8738	0.8770	0.8797
MFCC	0.8840	0.8835	0.8953	0.8767	0.8809	0.8835
Delta_MFCC	0.8807	0.8790	0.8935	0.8738	0.8771	0.8800
Comb_MFCC	0.8840	0.8835	0.8953	0.8767	0.8809	0.8835
Comb_MFCC_sn	0.8841	0.8836	0.8953	0.8768	0.8810	0.8836

Conclusion

The first impression sets the stone for all the relationships that follow. Its importance can never be too emphasized. Inspired by that, we strive to explore the possibility of enabling machines to automatically recognize or synthesize personality traits thus help people present themselves better by changing their behavior in simple ways. Based on the Deep Bimodal Regression model [1], we studied many ways to further boost the performance, and the results are promising.

[1]Zhang, C. L., Zhang, H., Wei, X. S., & Wu, J. (2016, October). Deep bimodal regression for apparent personality analysis. In Computer Vision–ECCV 2016 Workshops (pp. 311-324). Springer International Publishing.