

Supplementary Materials

Article

Bangla Sign Language (BdSL) Alphabets and Numerals Classification Using a Deep Learning Model

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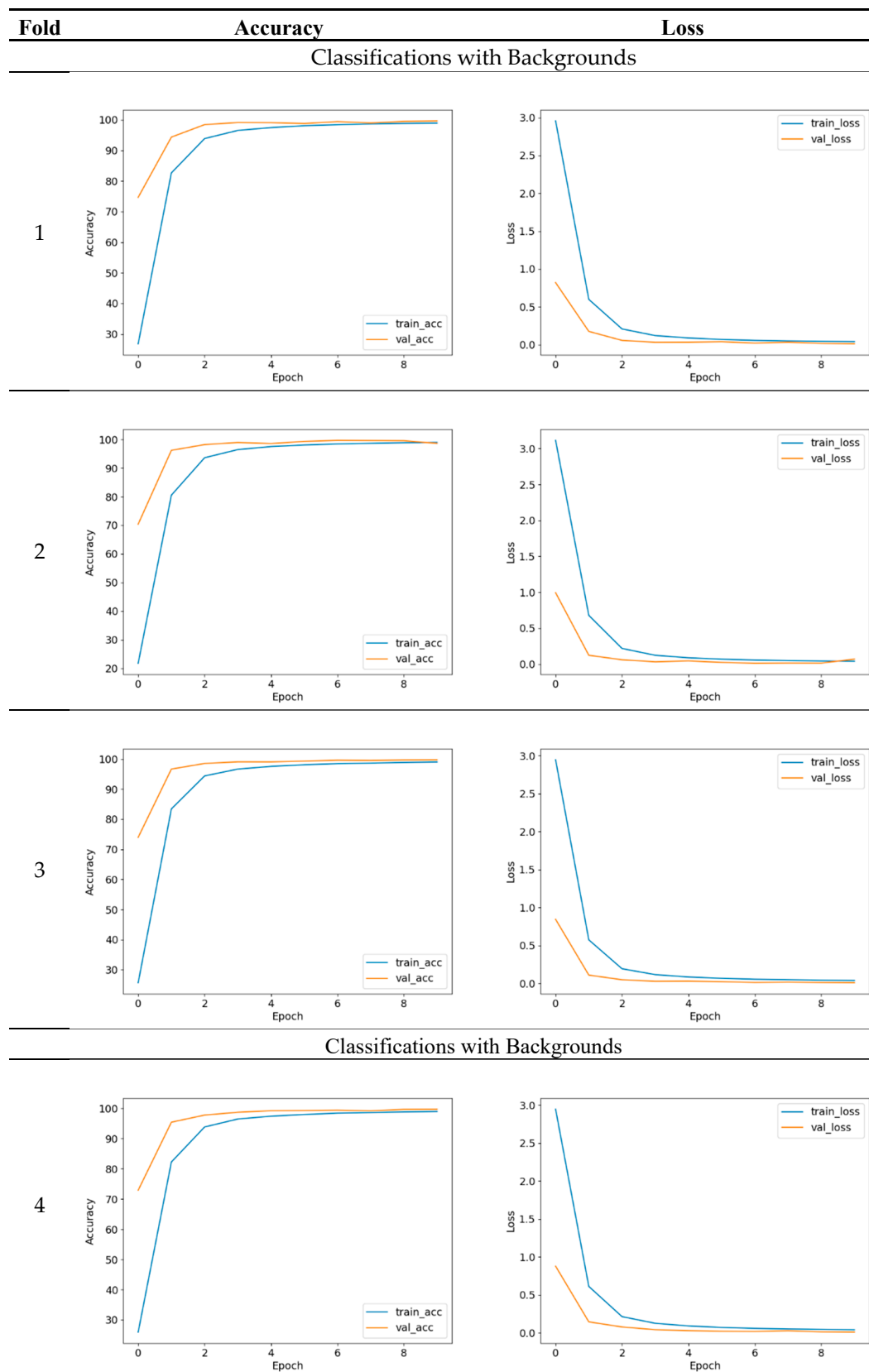


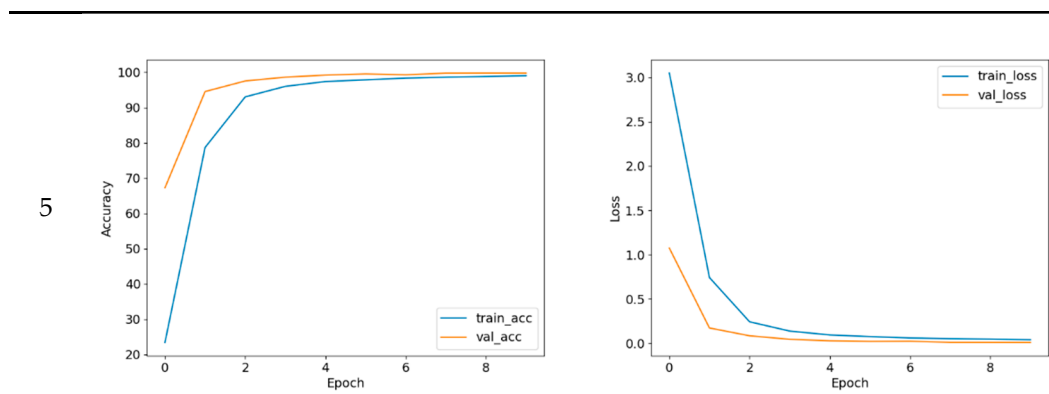
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Model: EfficientNet B1

The accuracy and loss curves during the training of EfficientNet B1 is given Table S1:

Table S1. Accuracy and Loss curves of EfficientNet B1 training in the "Classification with Backgrounds" Approach.





ROC Curve:

The ROC Curve of EfficientNet B1 in the “Classification with Background” is given below:

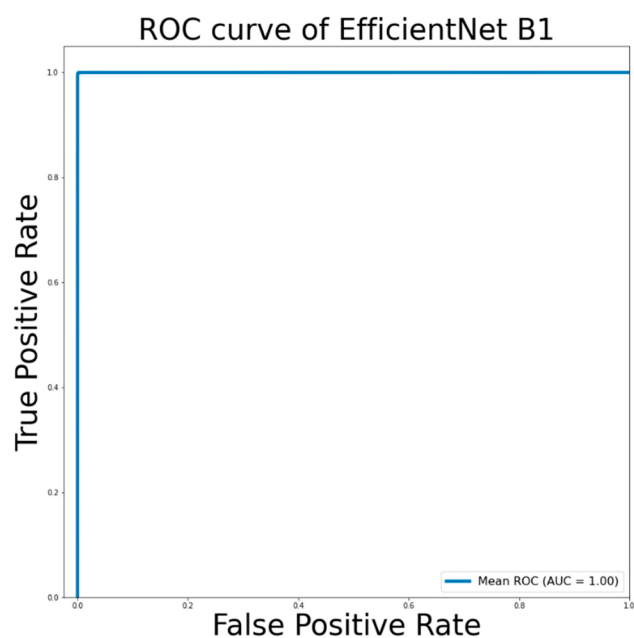
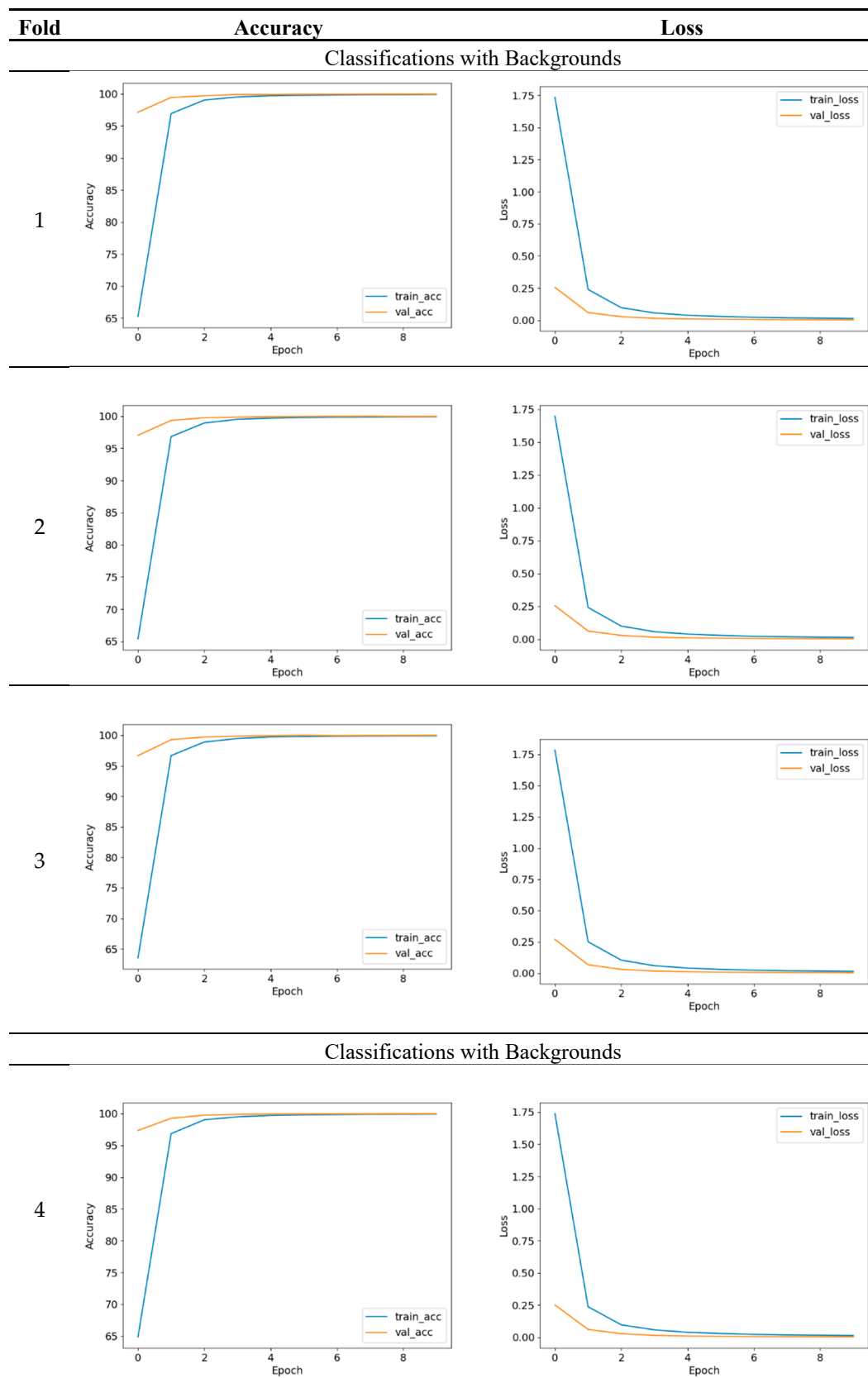


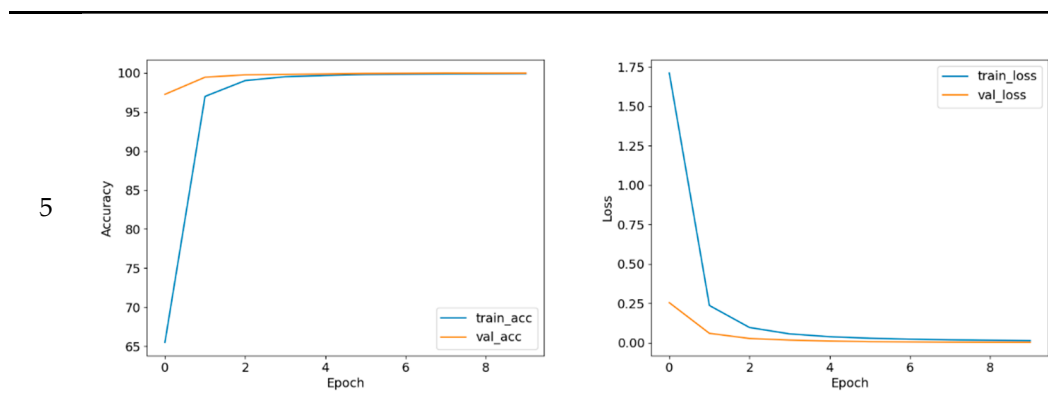
Figure S1. ROC curve of EfficientNet B1 in the "Classification with Background" approach.

Model: MobileNet V2

The accuracy and loss curves during the training of MobileNet V2 is given Table S2:

Table S2. Accuracy and Loss curves of MobileNet V2 training in the "Classification with Backgrounds" Approach.





ROC Curve:

The ROC Curve of MobileNet V2 in “Classification with Background” is given below:

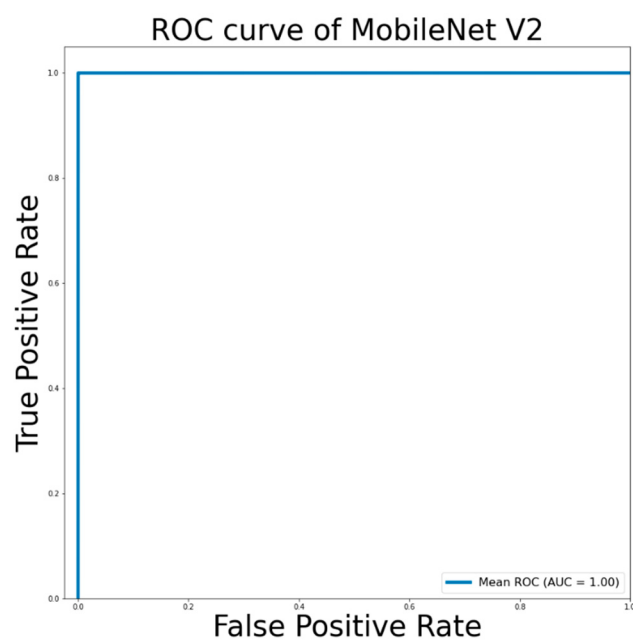
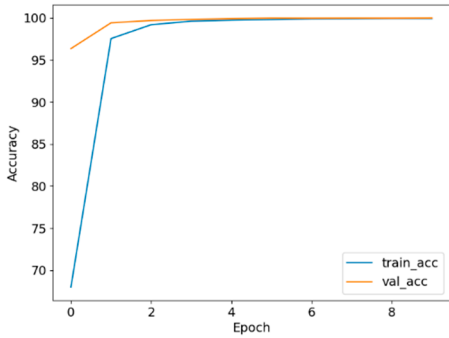
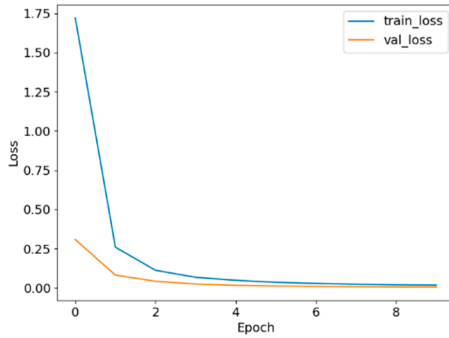
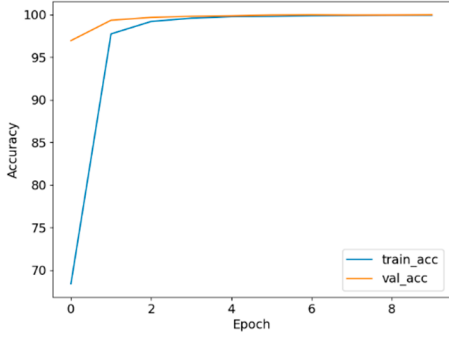
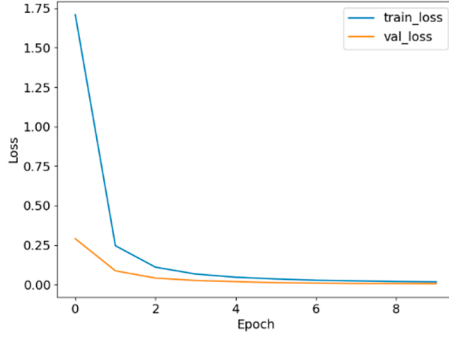
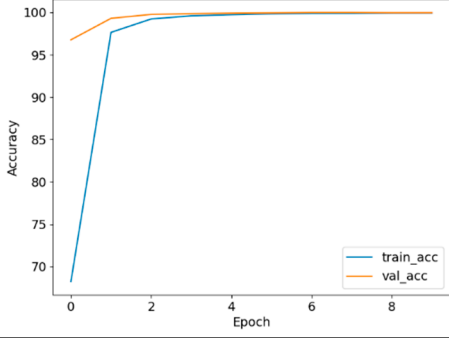
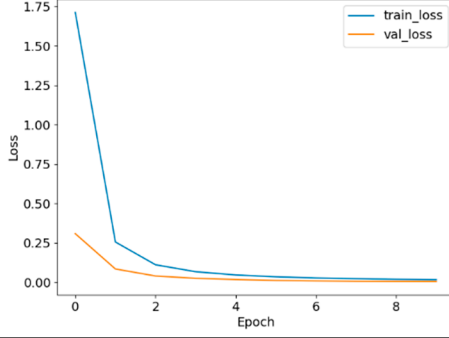
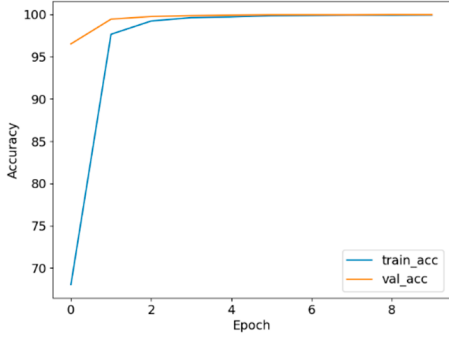
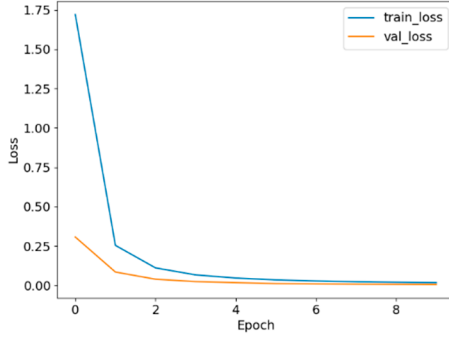


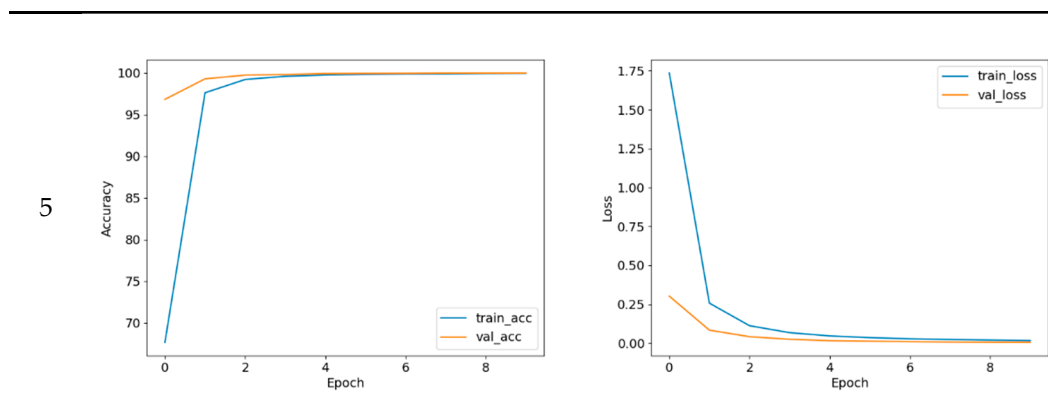
Figure S2. ROC curve of MobileNet V2 in the "Classification with Background" approach.

Model: ResNet18

The accuracy and loss curves during the training of ResNet18 is given Table S3:

Table S3. Accuracy and Loss curves of ResNet18 training in the "Classification with Backgrounds" Approach.

Fold	Accuracy	Loss
Classifications with Backgrounds		
1		
2		
3		
Classifications with Backgrounds		
4		



ROC Curve:

The ROC Curve of ResNet18 in “Classification with Background” is given below:

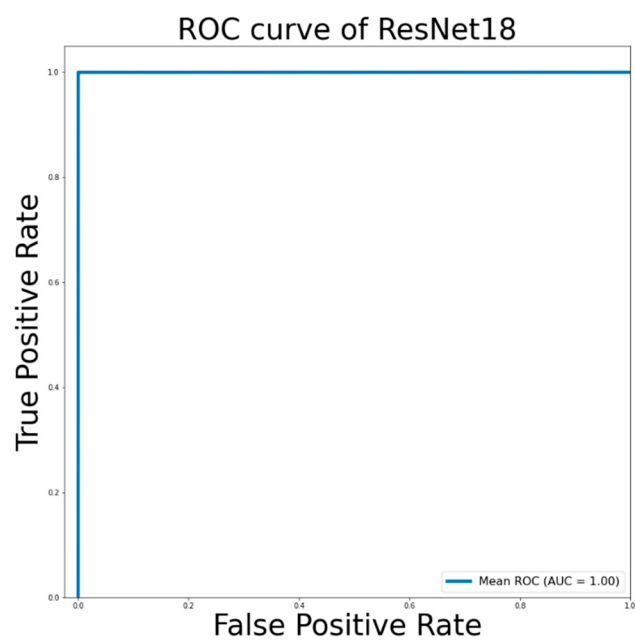
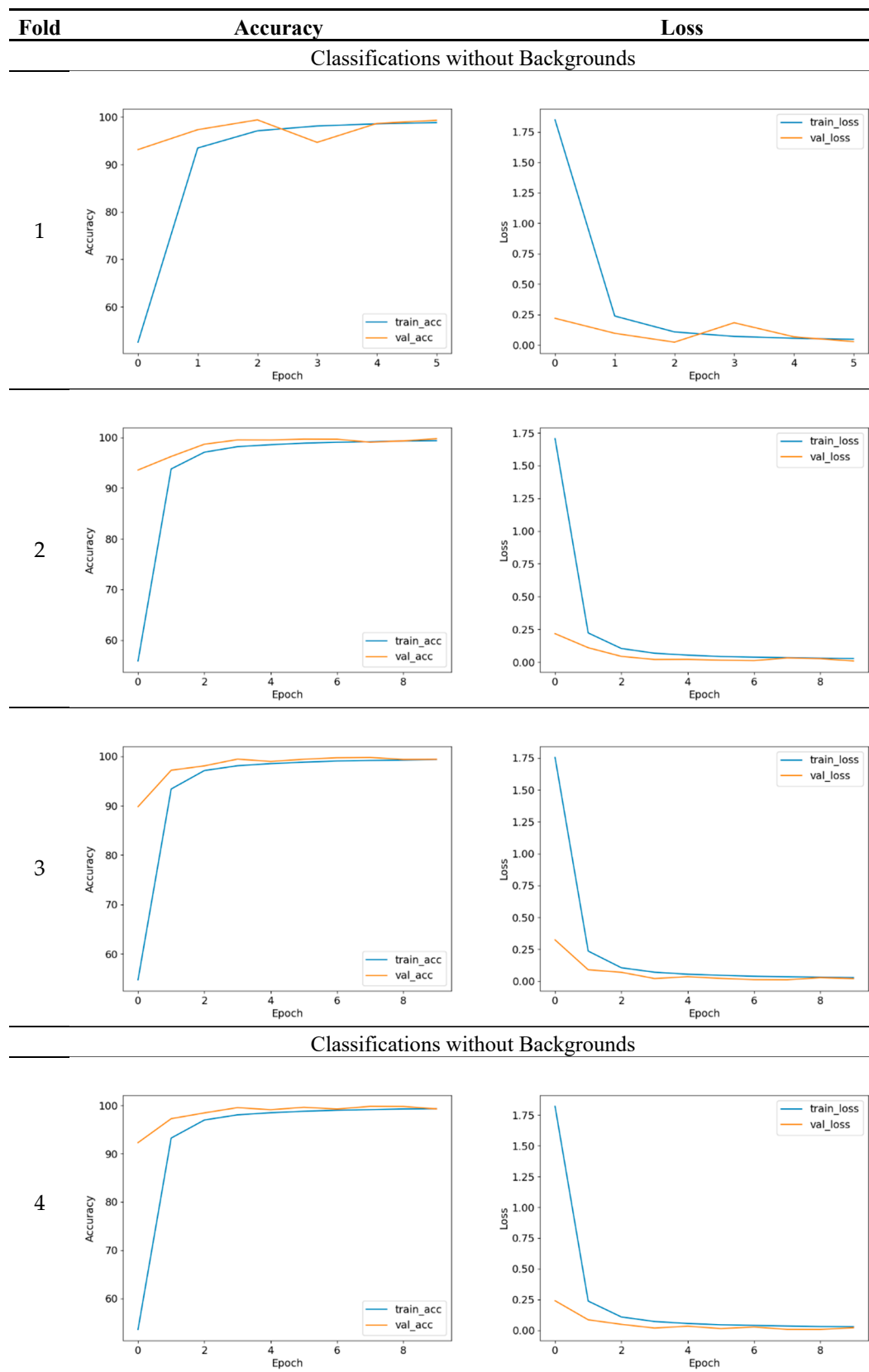


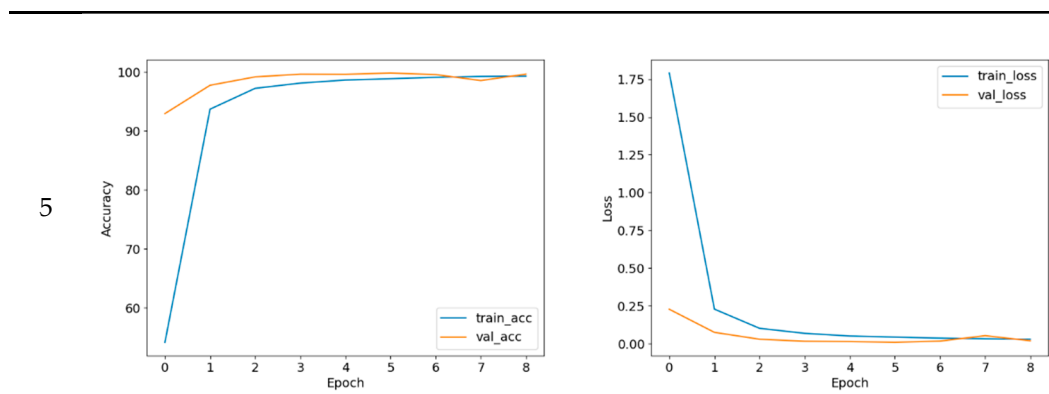
Figure S3. ROC curve of ResNet18 in the "Classification with Background" approach.

Model: EfficientNet B1

The accuracy and loss curves during the training of EfficientNet B1 is given Table S4:

Table S4. Accuracy and Loss curves of EfficientNet B1 training in the "Classification without Backgrounds" Approach.





ROC Curve:

The ROC Curve of EfficientNet B1 in "Classification without Background" is given below:

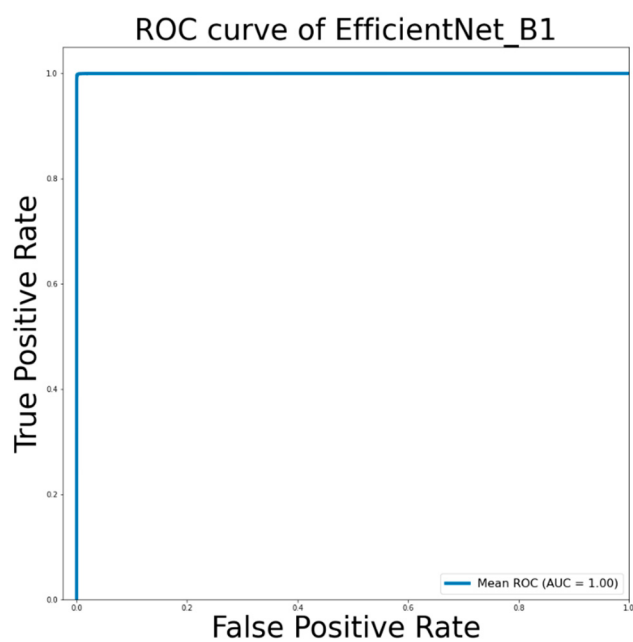
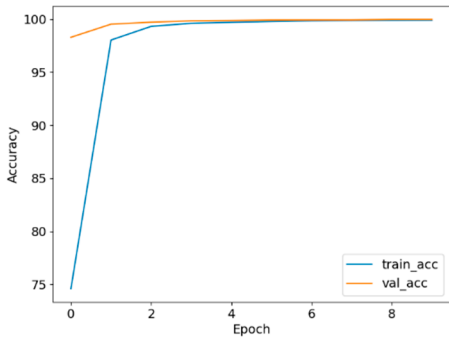
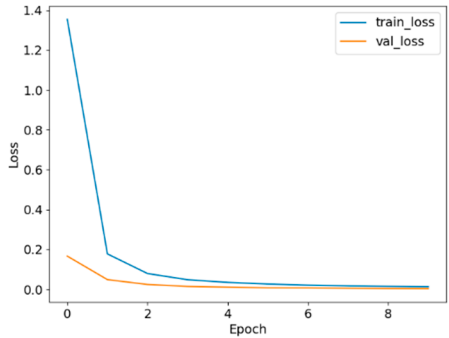
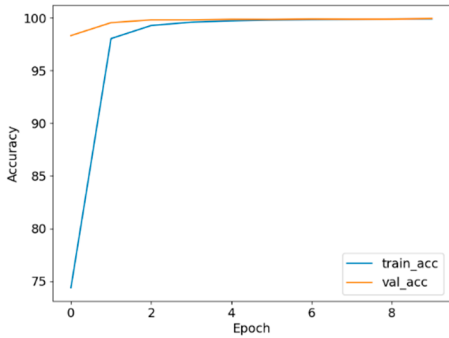
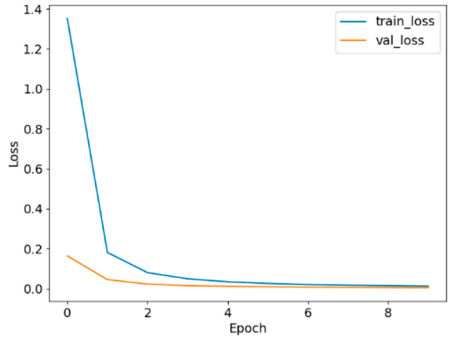
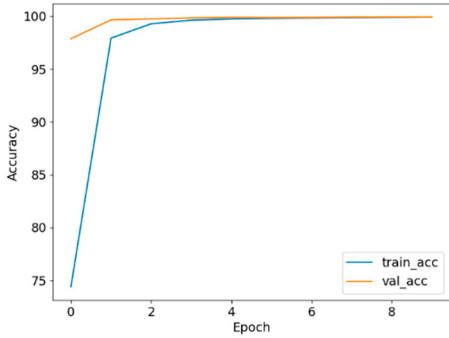
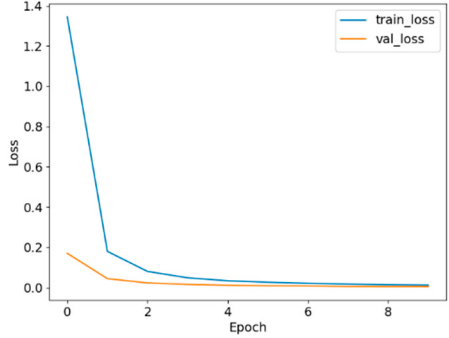
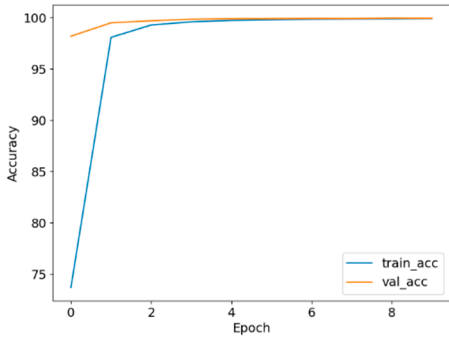
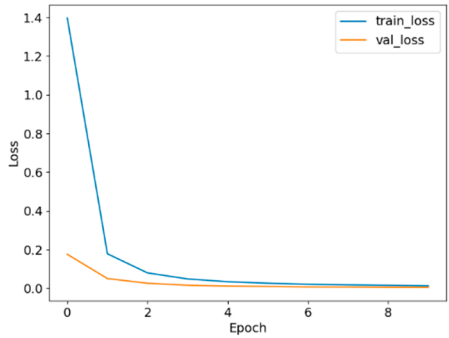


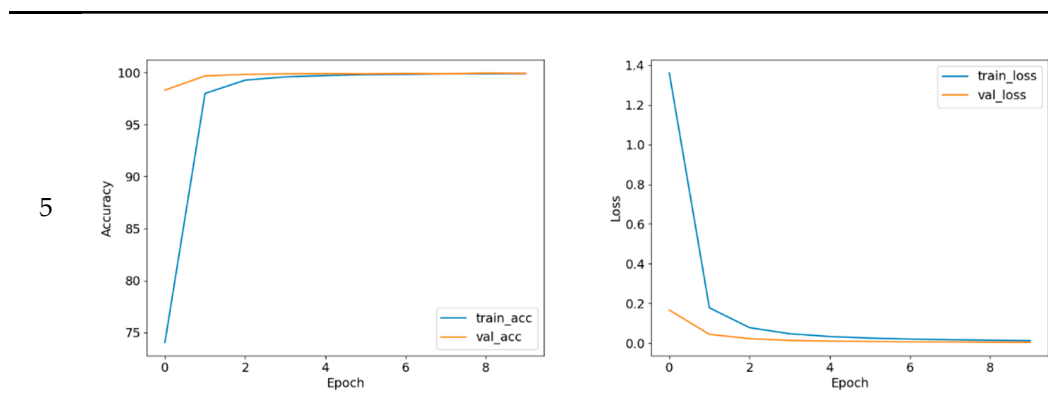
Figure S4. ROC curve of EfficientNet B1 in the "Classification without Background" approach.

Model: MobileNet V2

The accuracy and loss curves during the training of MobileNet V2 is given Table S5:

Table S5. Accuracy and Loss curves of MobileNet V2 training in "Classification Without Backgrounds" Approach.

Fold	Accuracy	Loss
Classifications without Backgrounds		
1		
2		
3		
Classifications without Backgrounds		
4		



ROC Curve:

The ROC Curve of MobileNet V2 in “Classification without Background” is given below:

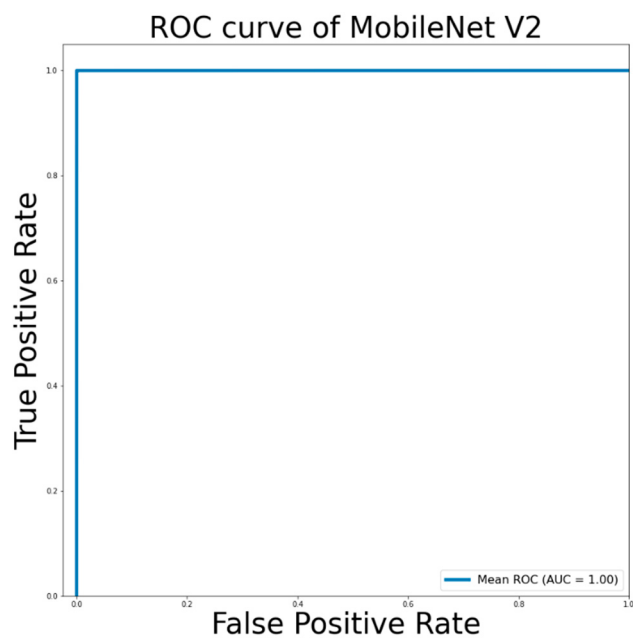
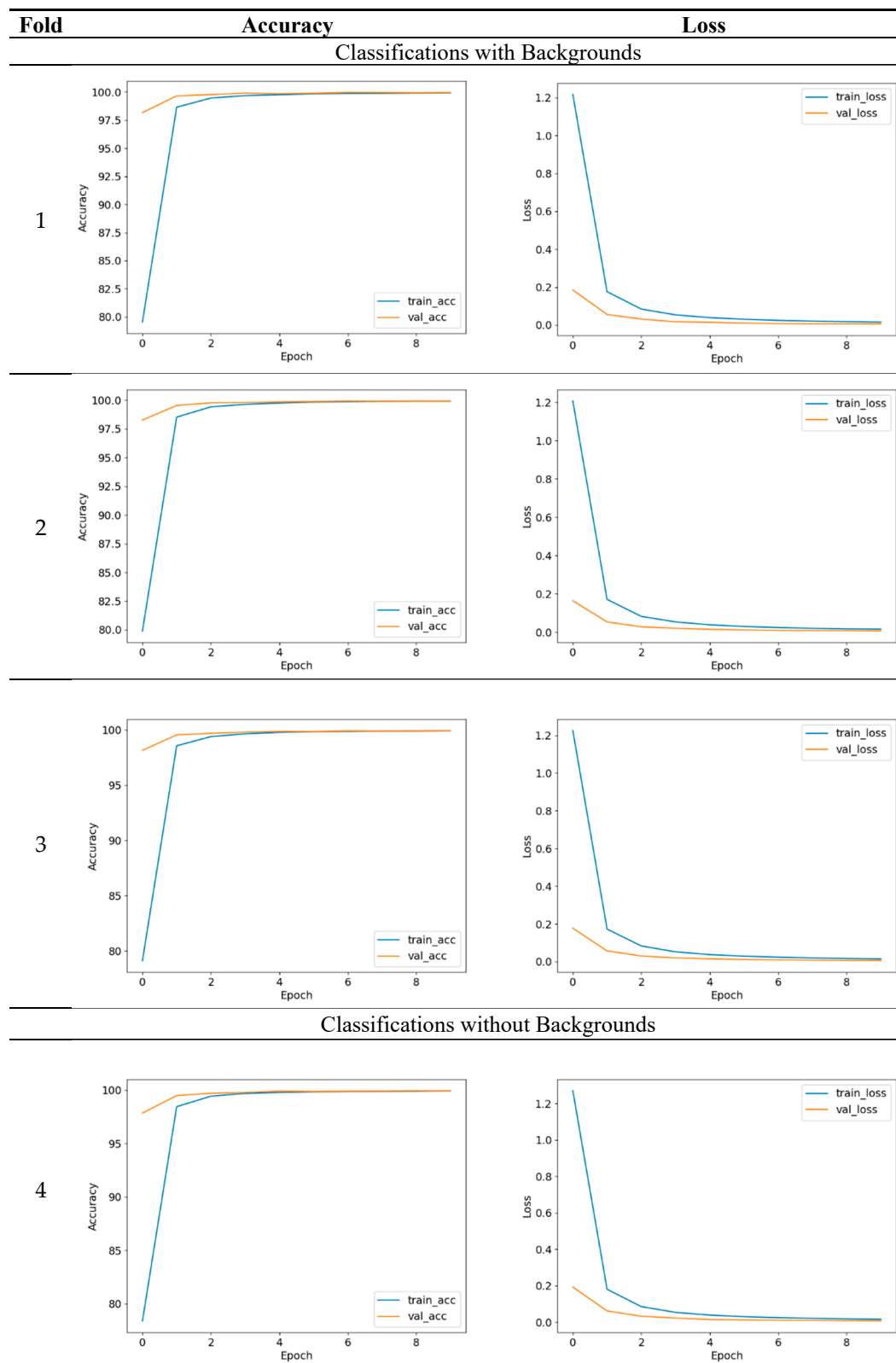


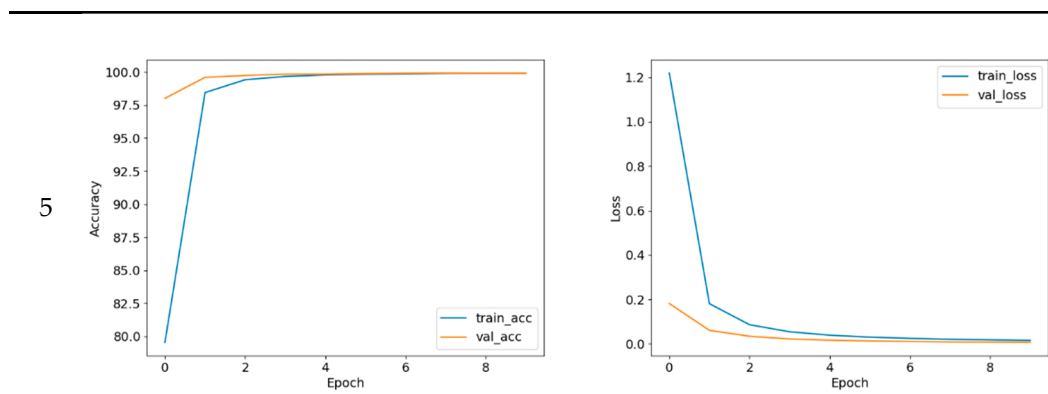
Figure S5. ROC curve of MobileNet v2 in "Classification without Background" approach.

Model: ResNet18

The accuracy and loss curves during the training of ResNet18 is given Table S6:

Table S6. Accuracy and Loss curves of ResNet18 training in "Classification Without Backgrounds" Approach.





ROC Curve:

The ROC Curve of ResNet18 in “Classification without Background” is given below:

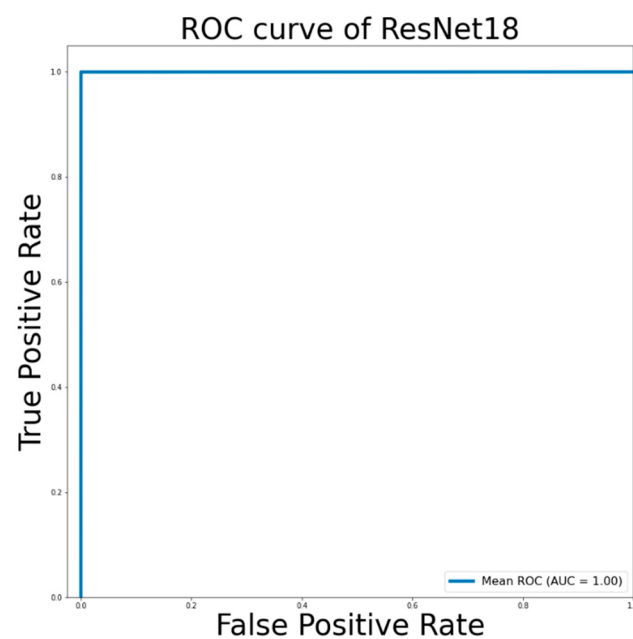


Figure S6. ROC curve of ResNet18 in "Classification without Background" approach.