

Technical Summary

Task A: Gender Classification

Approach & Architecture

- **Backbone:** MobileNetV2 (ImageNet pre-trained)
- **Head:** Custom classifier (2 classes: Male/Female)
- **Loss:** CrossEntropyLoss
- **Optimizer:** Adam (lr = 0.001)
- **Regularization:** Dropout (0.2), BatchNorm
- **Training:** Transfer Learning (frozen → fine-tune)

Task B: Face Recognition

Approach & Architecture

- **Backbone:** EfficientNetB0 (pre-trained)
- **Loss:** Triplet Loss (margin = 1.0)
- **Optimizer:** Adam (lr = 0.01)
- **Embedding:** 128-dim, L2-normalized
- **Input:** 160×160 RGB image
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Conclusion

- Task A: Strong accuracy, deployment-ready for gender classification.
- Task B: Robust identity recognition via Siamese architecture.
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