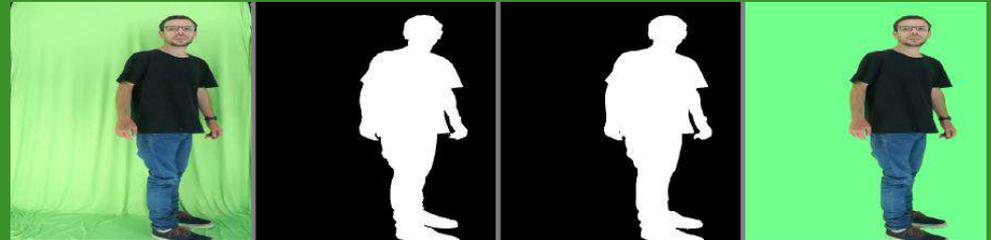
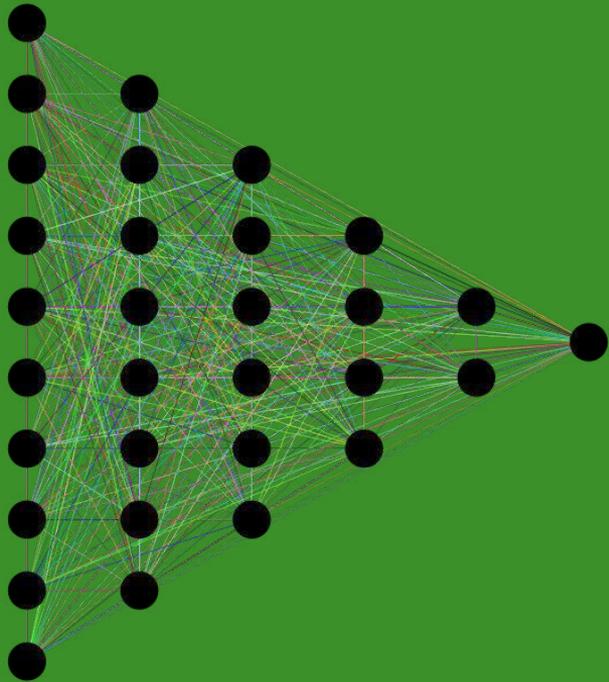


Machine Learning aplicado ao tratamento de imagens



Discentes:

Erick Funier dos Santos - RA 11031914

Paulo Ricardo Cunha - RA 11080312

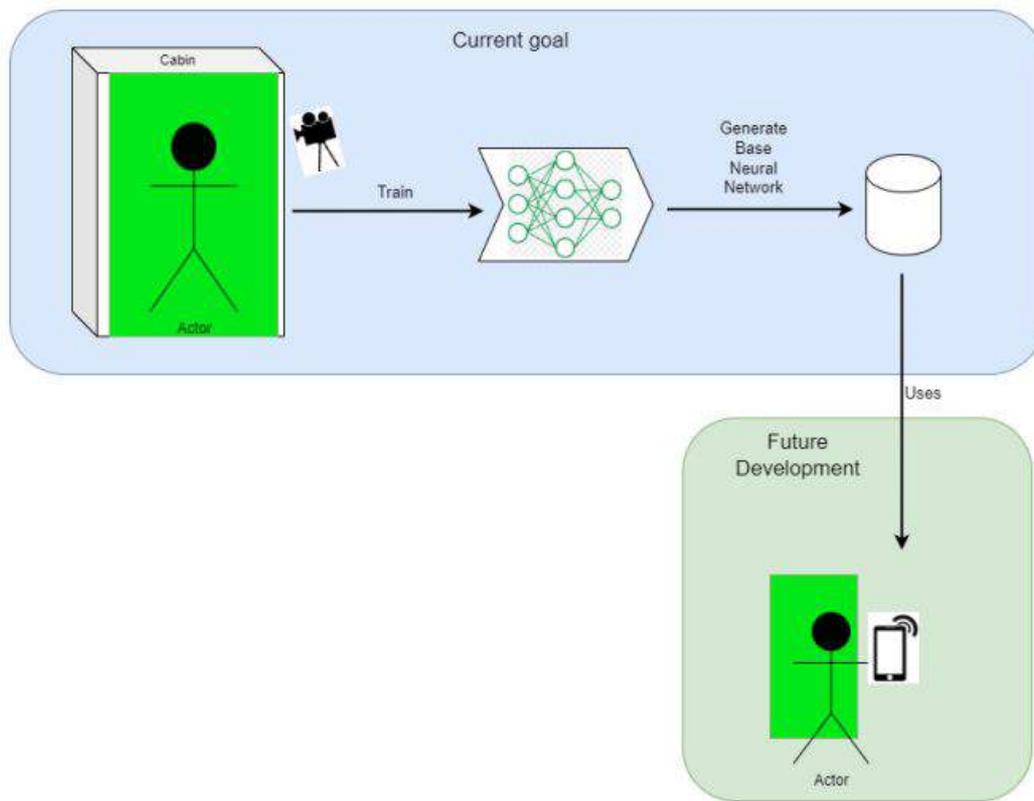
Orientador:

Mario Alexandre Gazziro



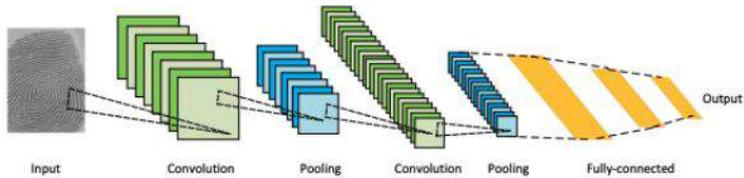
Universidade Federal do ABC
Centro de Matemática, Computação e Cognição
Bacharelado em Ciência da Computação

Introdução e Motivação

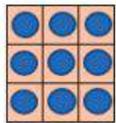


Revisão Bibliográfica

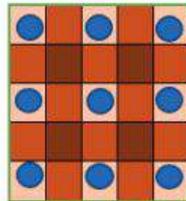
- Trabalhos relacionados
- CNN e DCNN



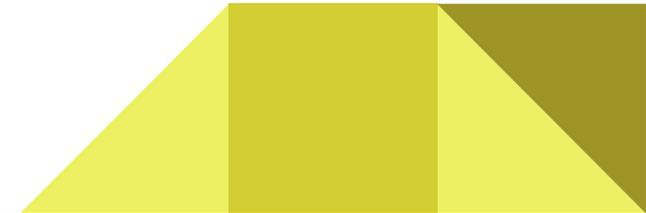
- Atrous Convolution



3x3

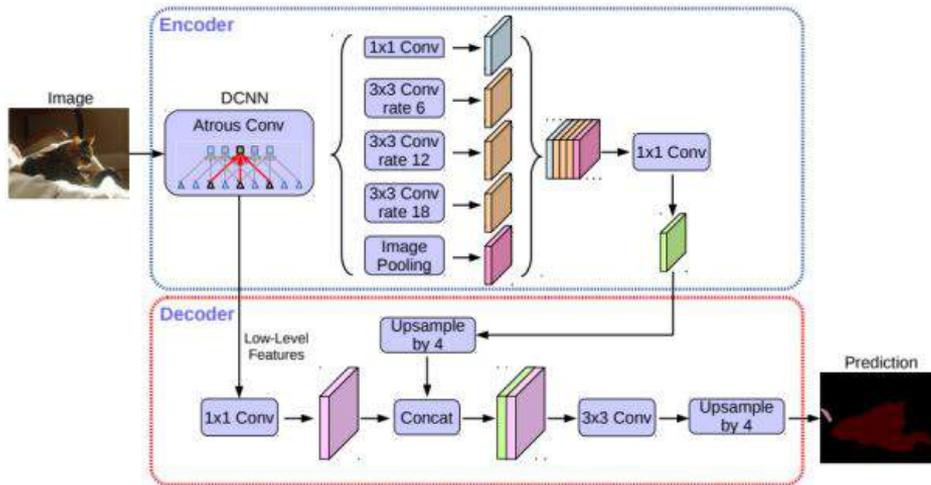
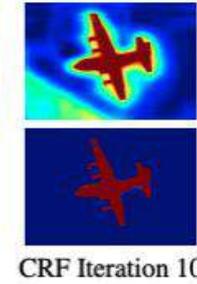
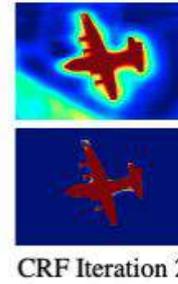
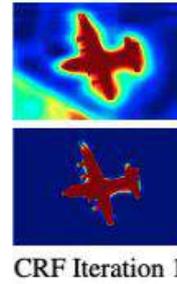
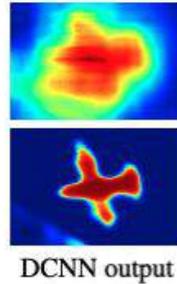


3x3 dilated 2 resulting 5x5



Revisão Bibliográfica

- Fully Connected Conditional Random Field (CRF)
- DeepLabv3+
- Squeeze and Excite
- Métricas (F1 e Jaccard)



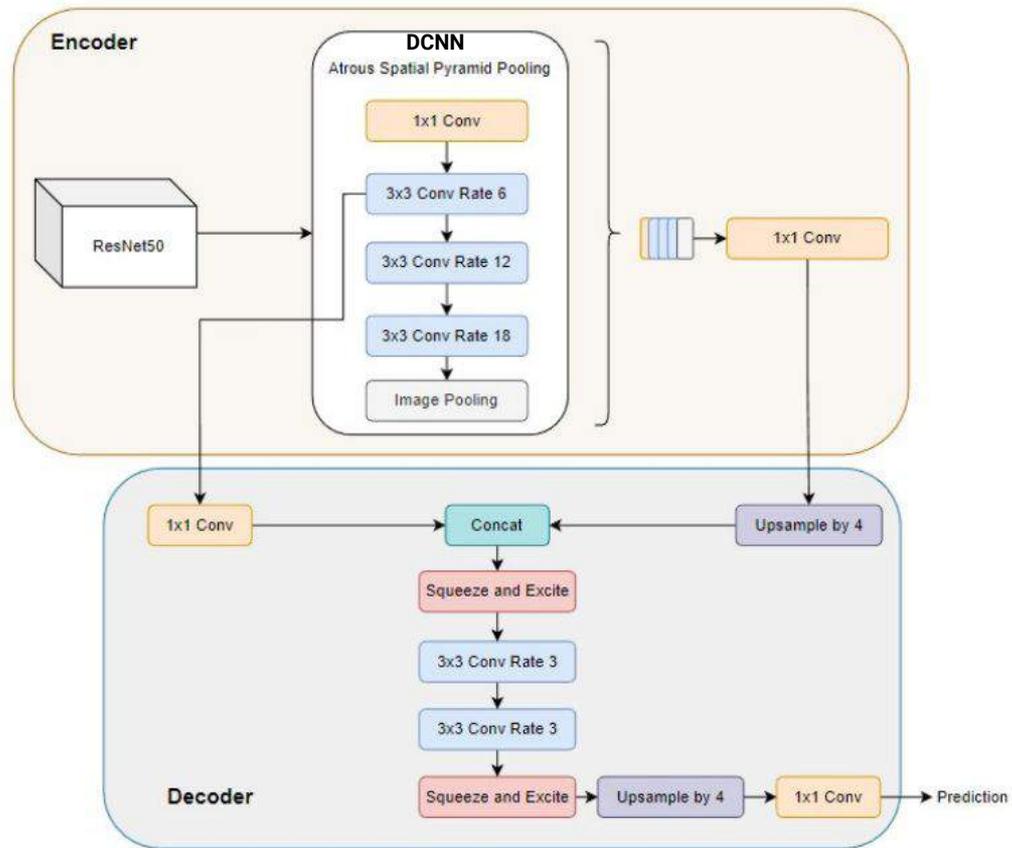
Metodologia

- Aquisição e tratamento dos dados



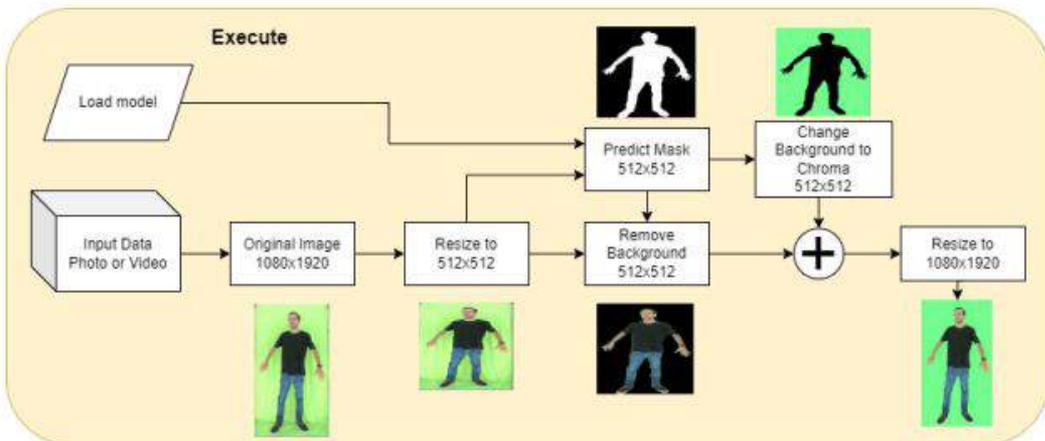
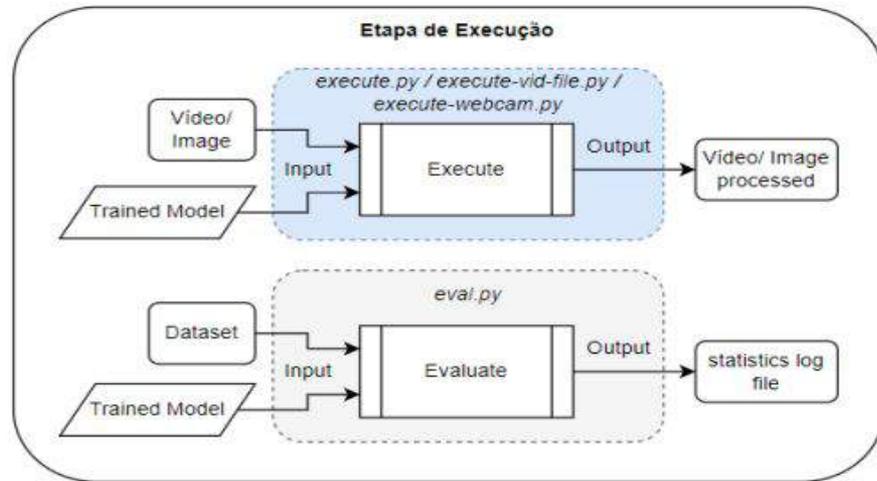
Metodologia - Modelo

- Encoder
 - ResNet50
 - DCNN
- Decoder
 - Squeeze and Excite
- Treinamento da rede

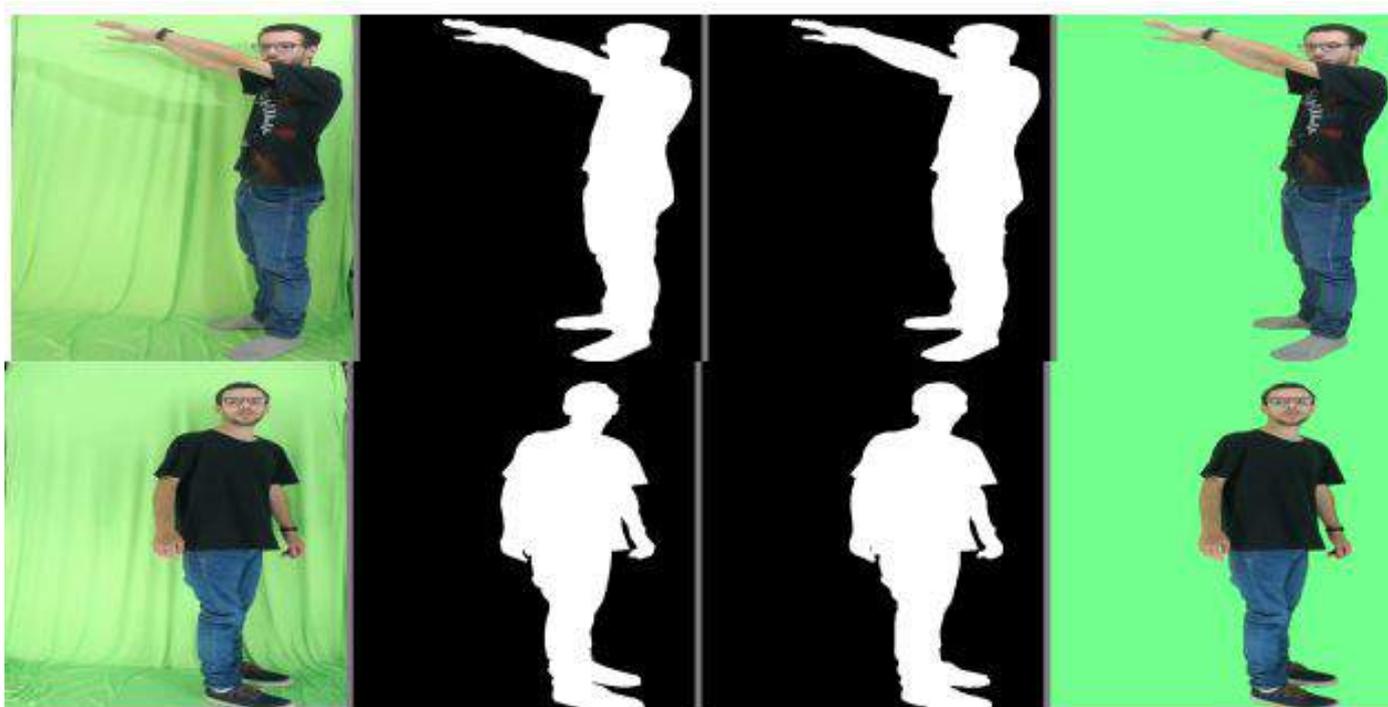


Execução

- Modos de execução
 - `execute.py`
 - `execute-vid-file.py`
 - `execute-webcam.py`
- Avaliação de desempenho
 - `eval.py`



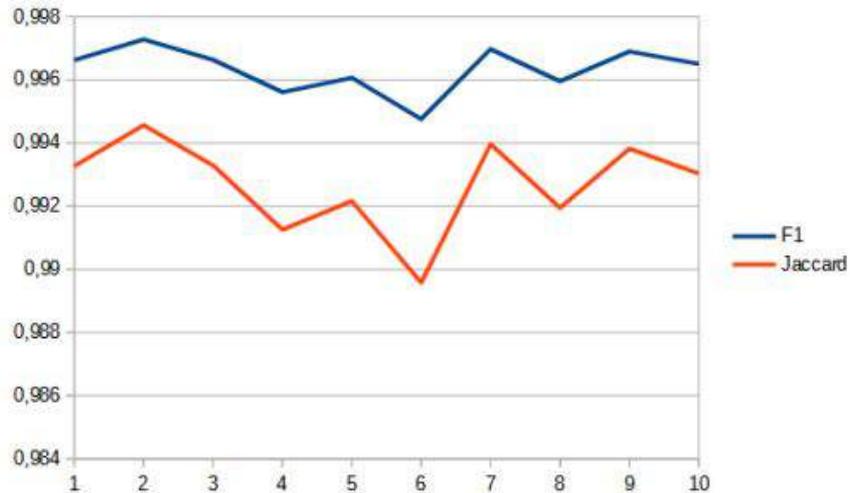
Análise de Resultados



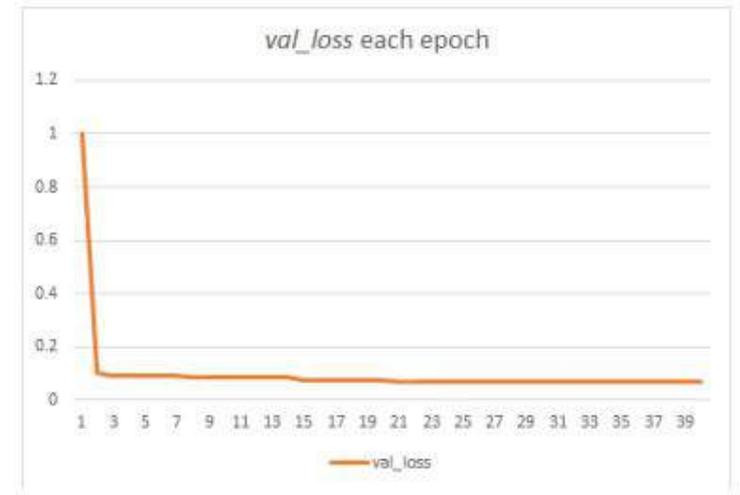
Análise de Resultados

- Métricas

F1- Score e Jaccard

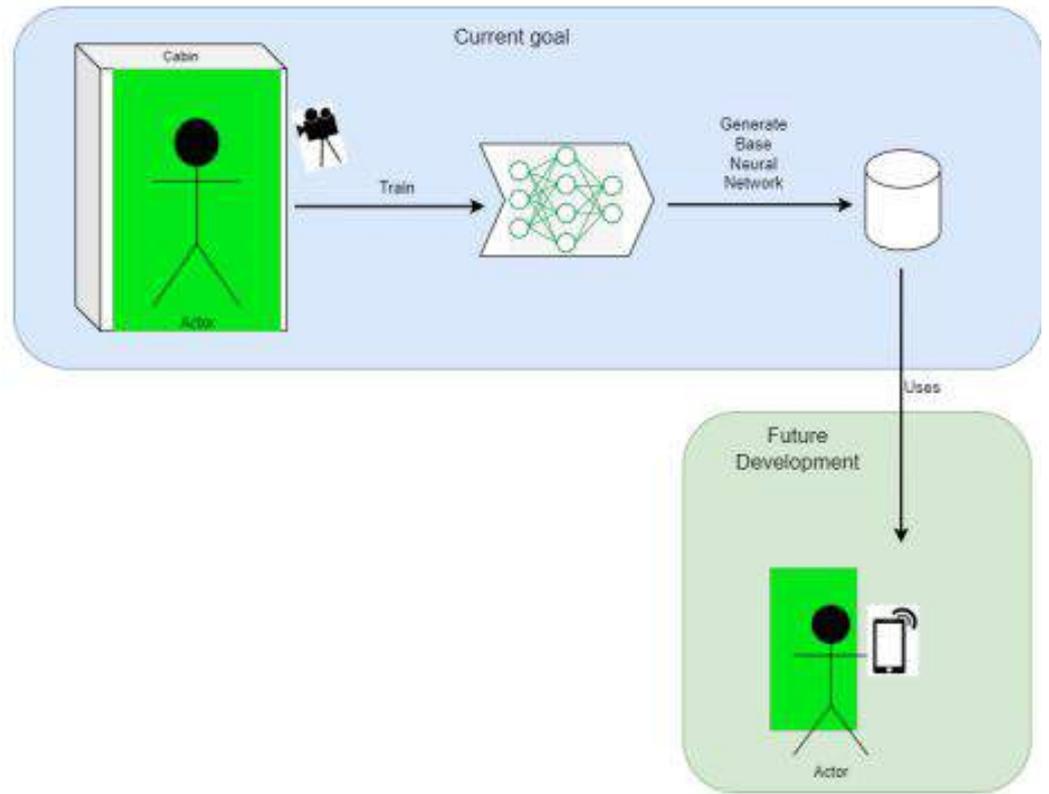


val_loss vs epoch

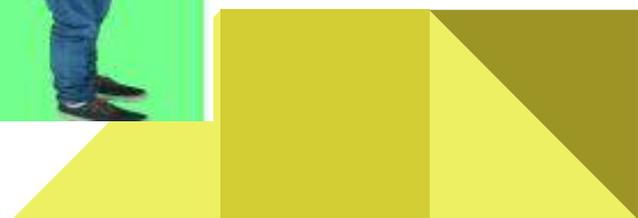


Trabalhos Futuros

- Aumento do dataset
- Desenvolvimento Mobile
 - Portabilidade da plataforma gráfica



Conclusão



Agradecimentos

