



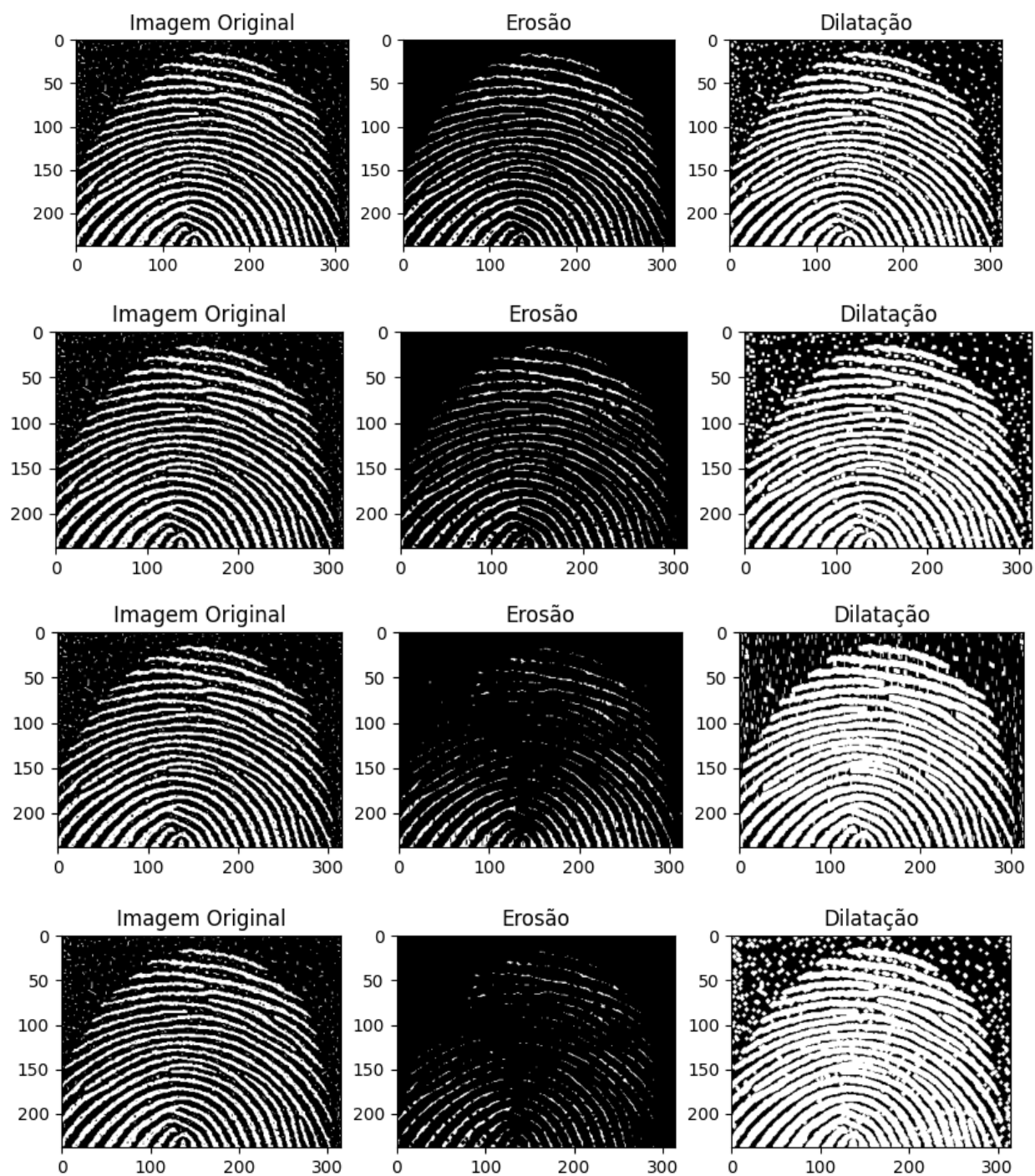
Instituto Federal de Educação, Ciência e Tecnologia de São Paulo

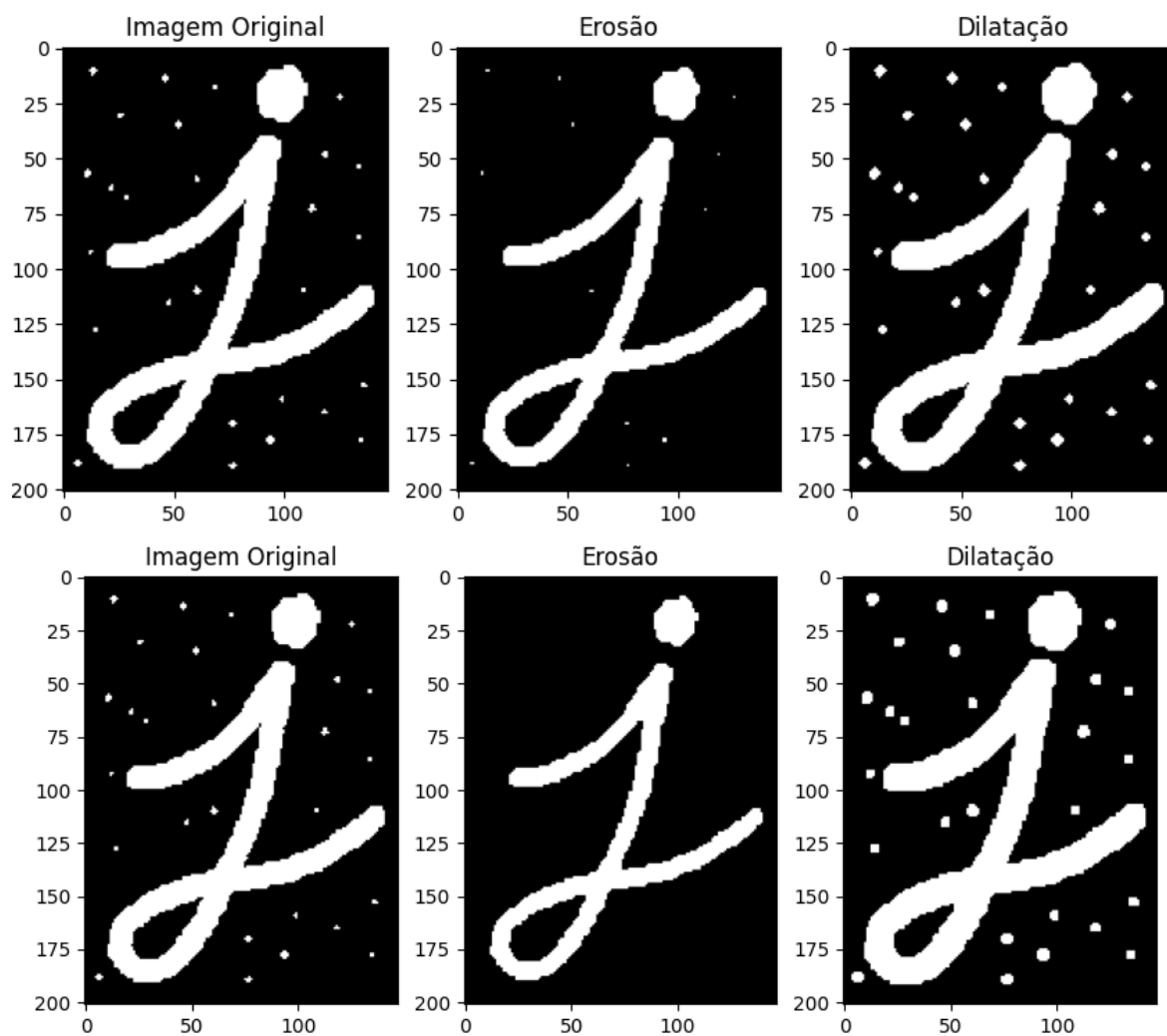
Morfologia

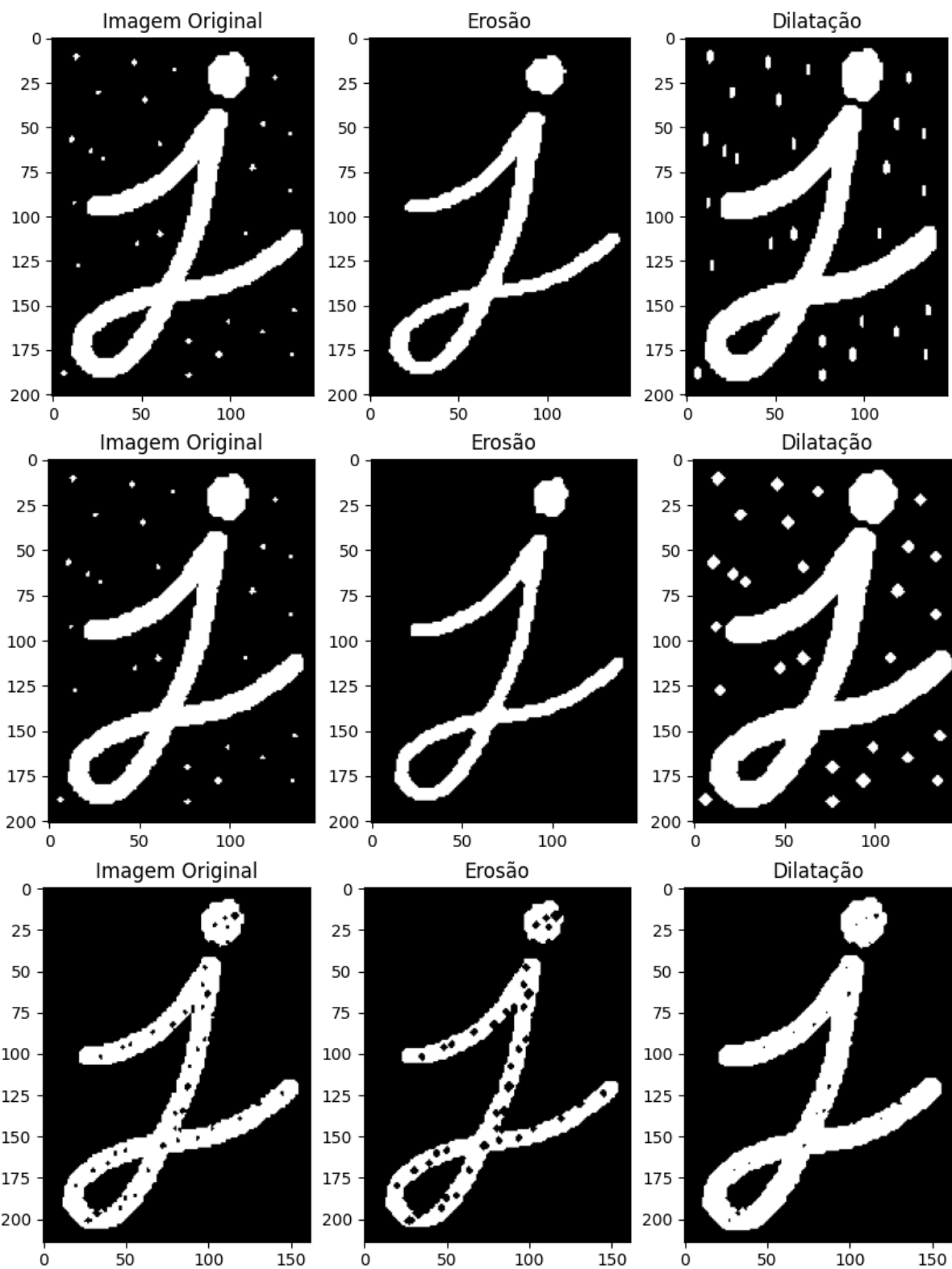
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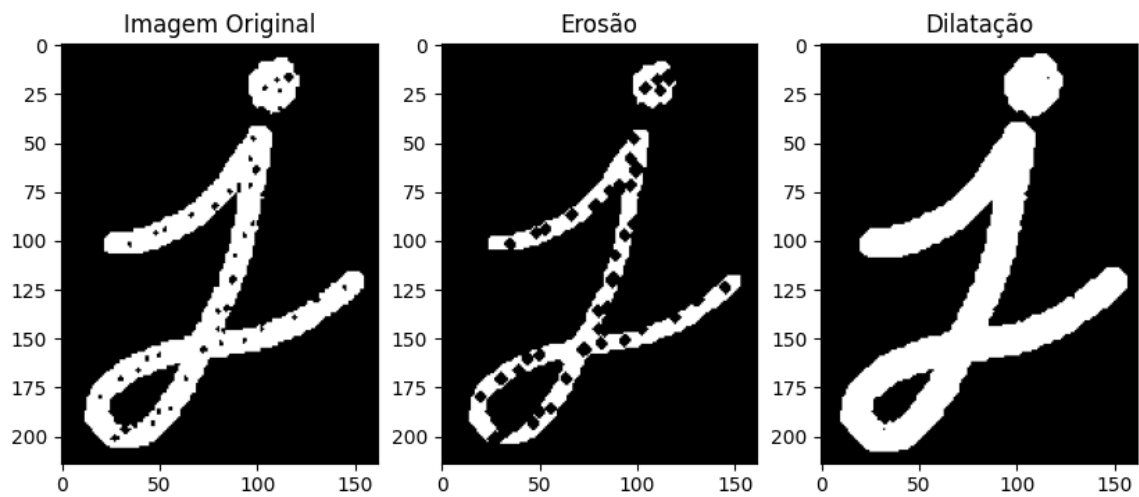
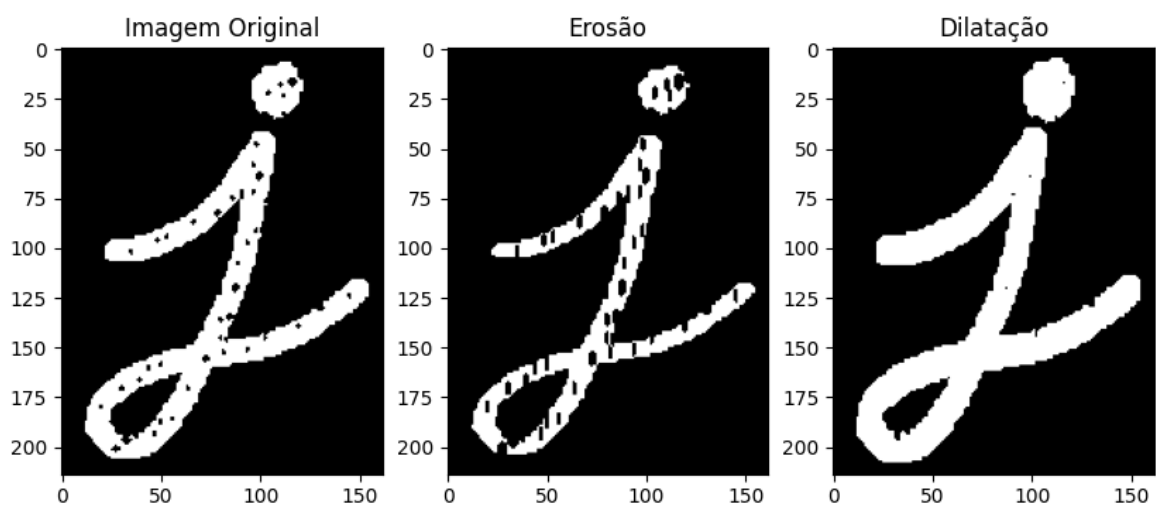
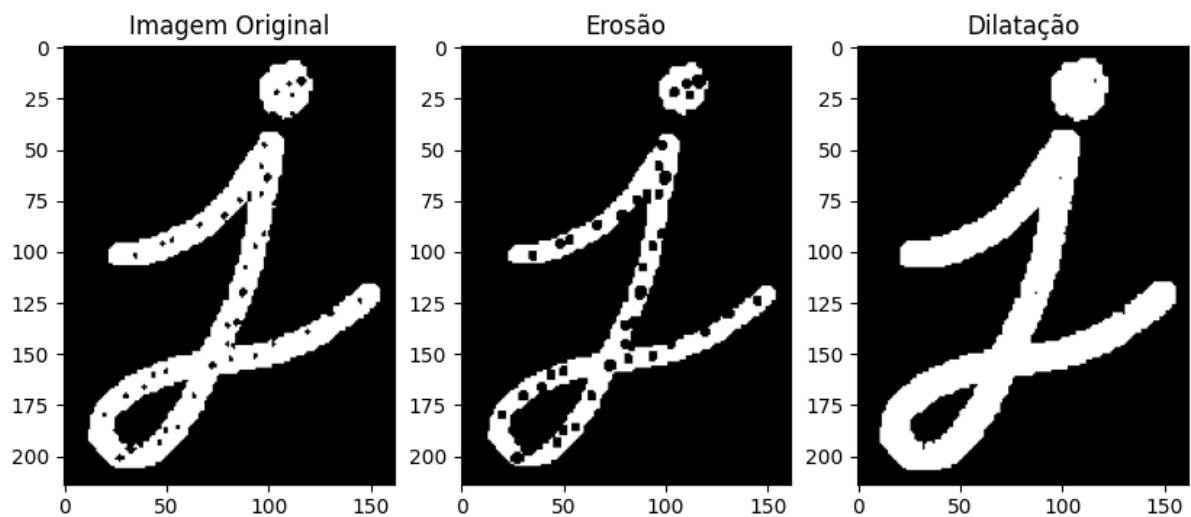
Docente: Murillo Varges Da Silva

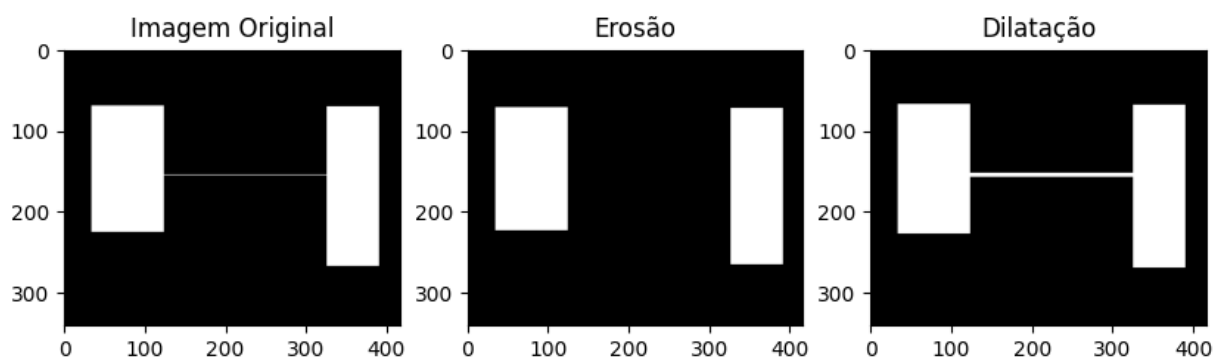
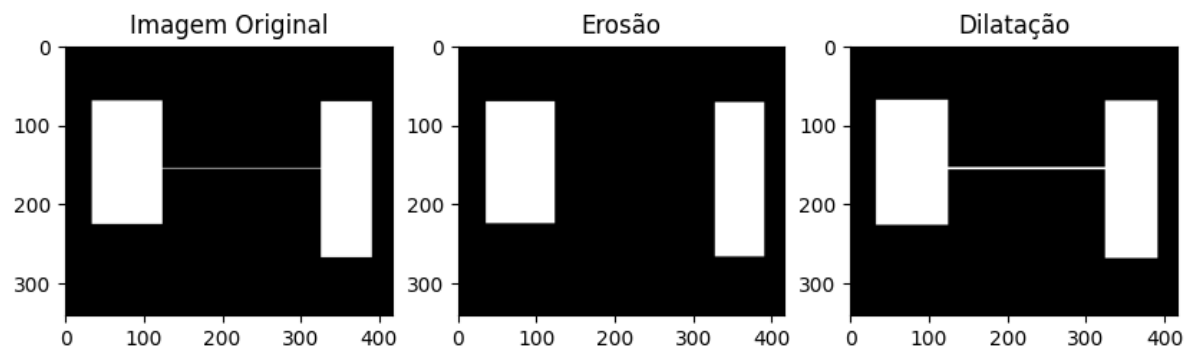
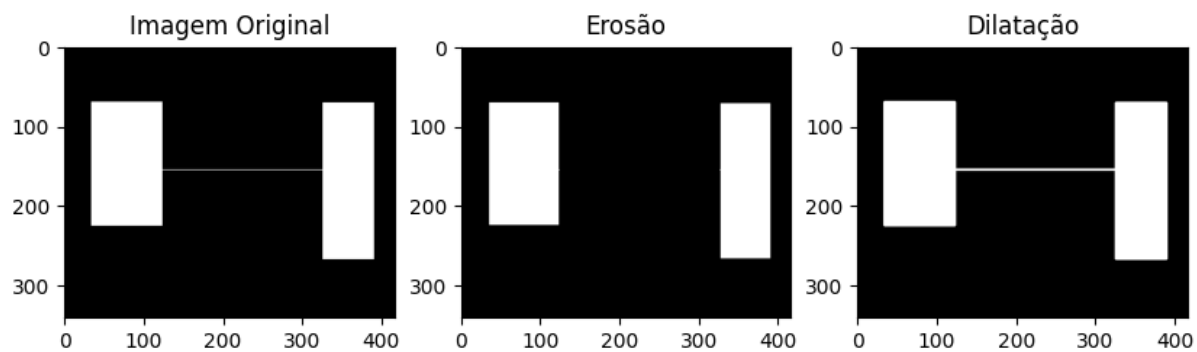
Birigui
2023

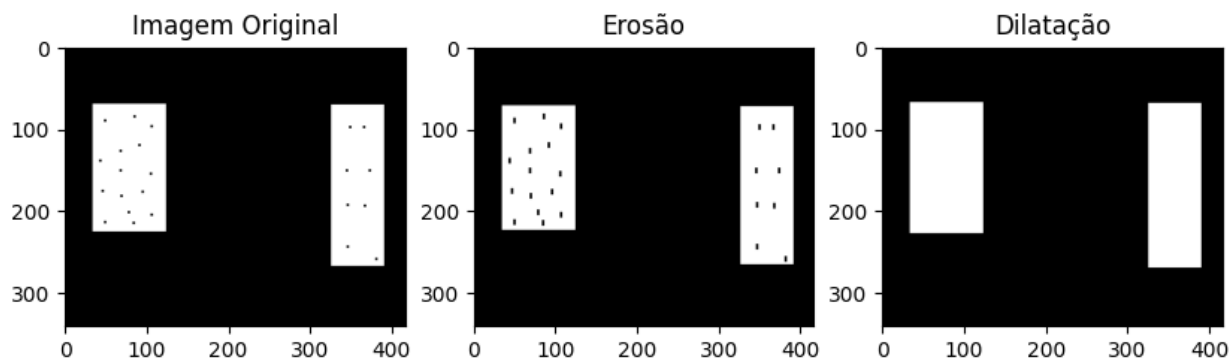
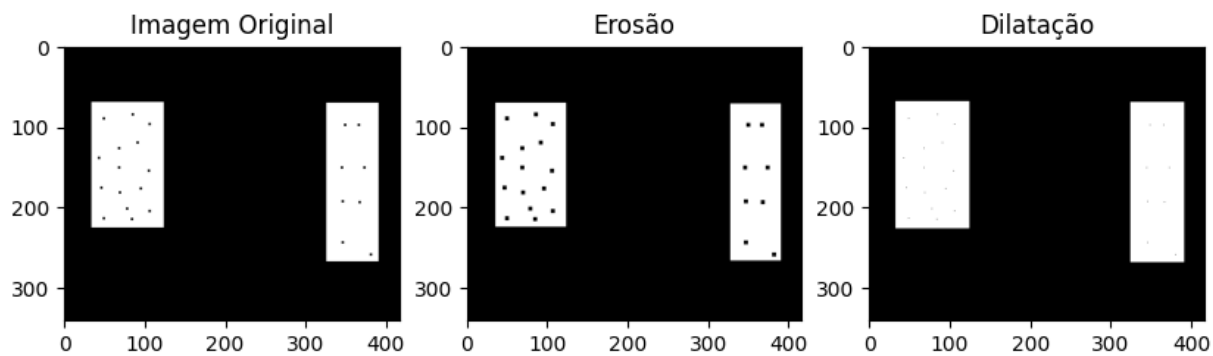
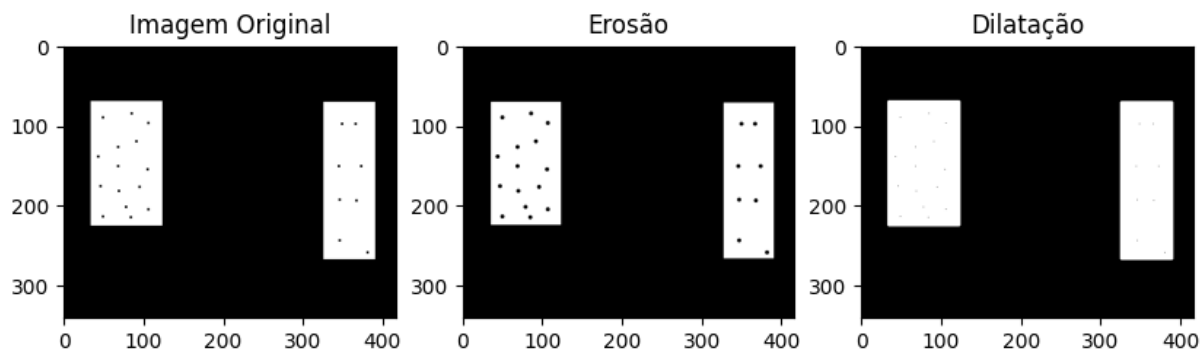
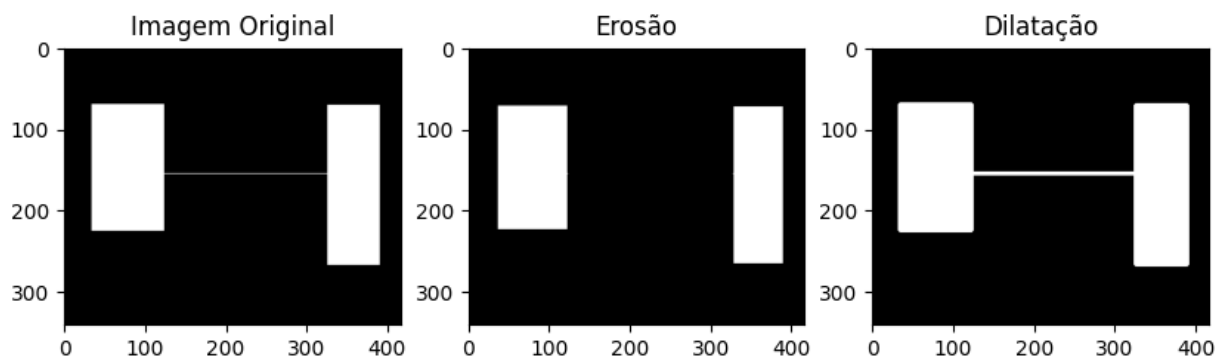


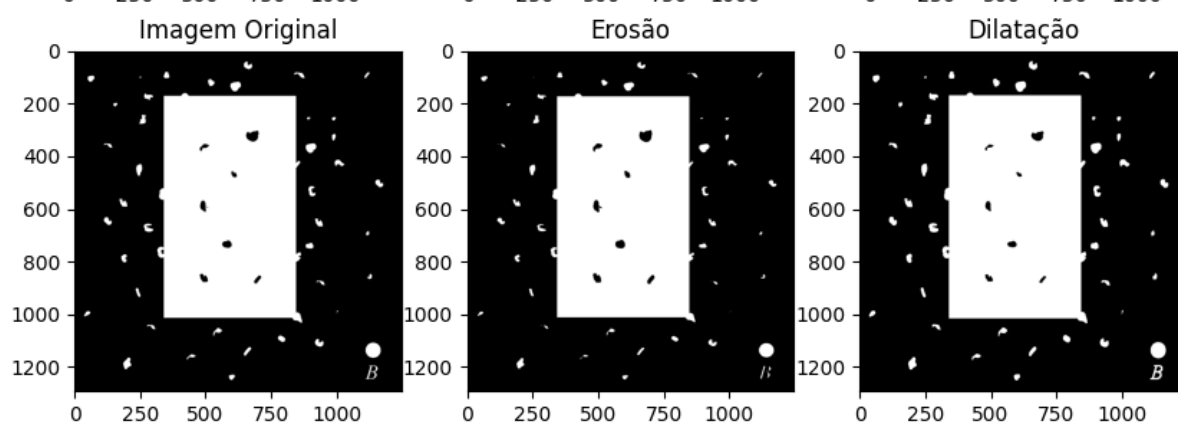
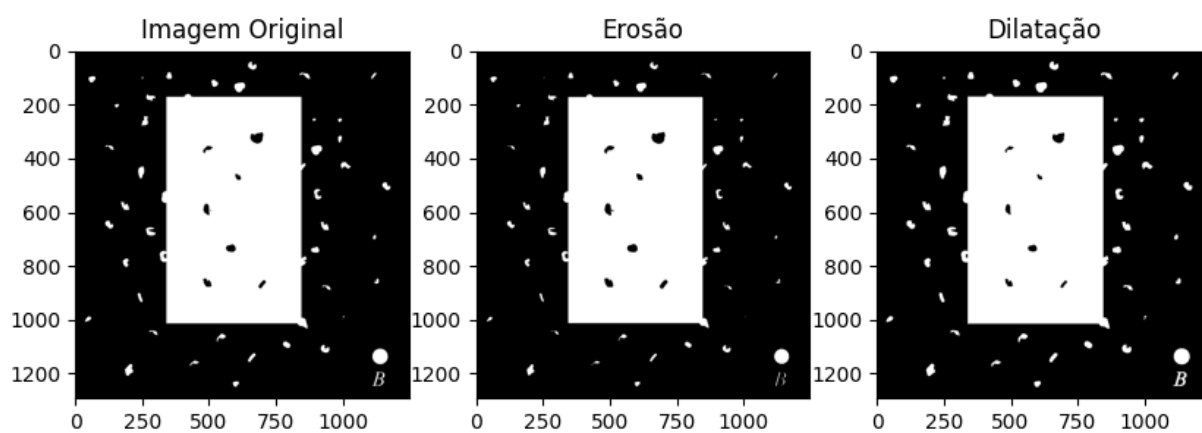
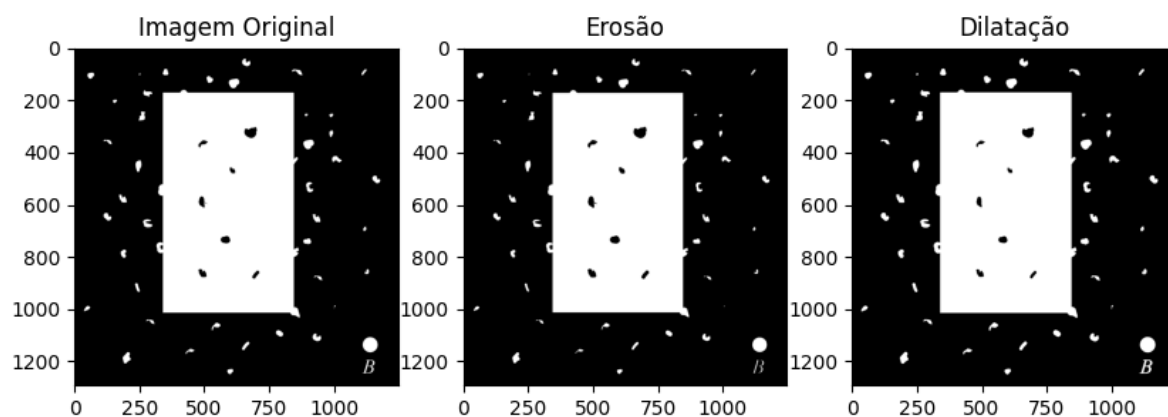
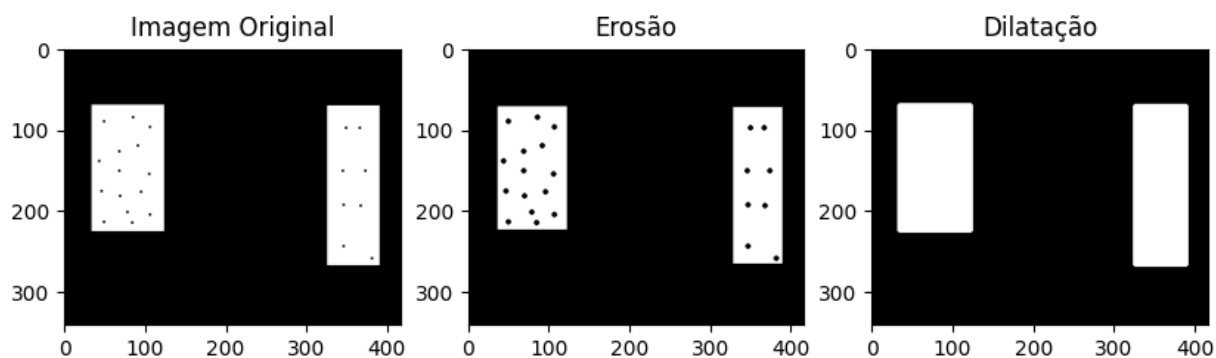


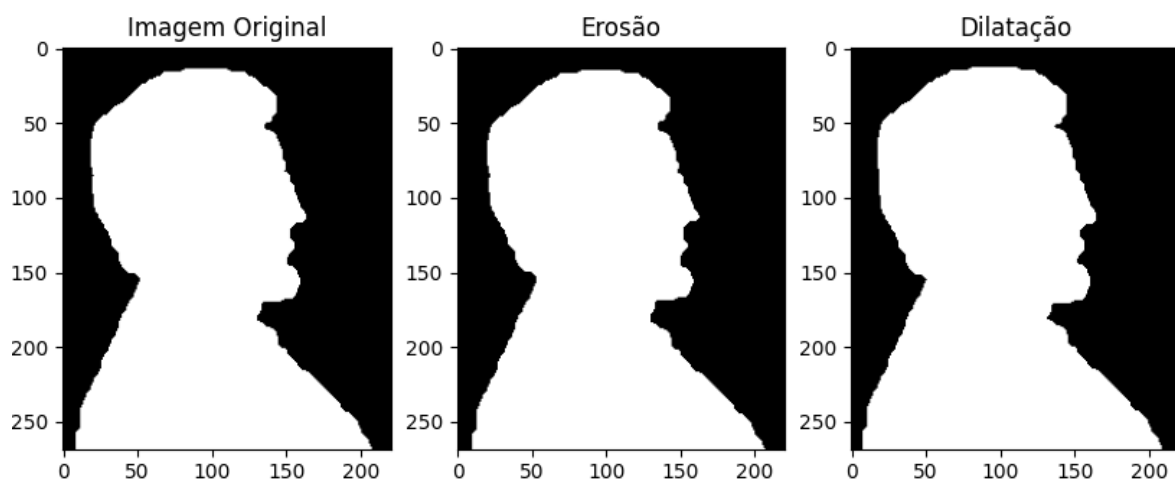
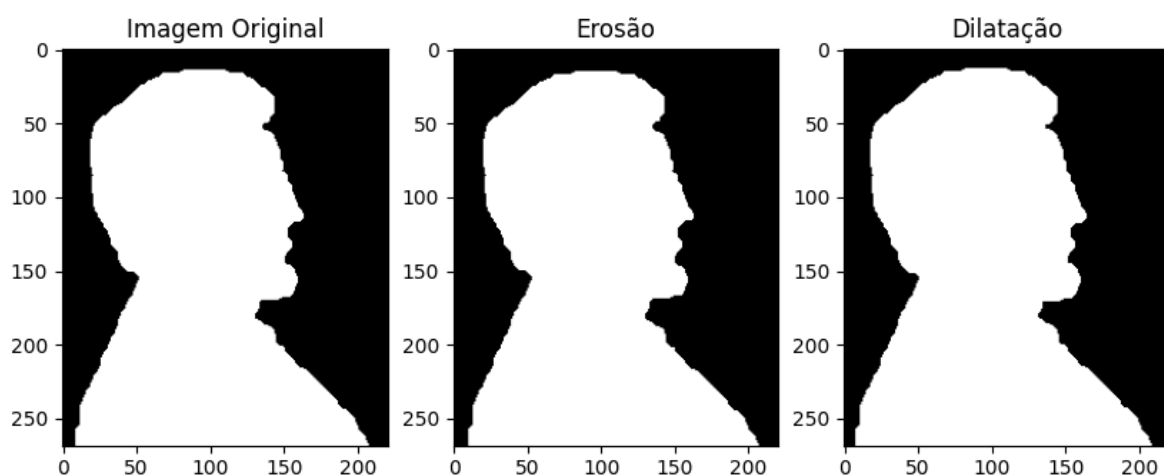
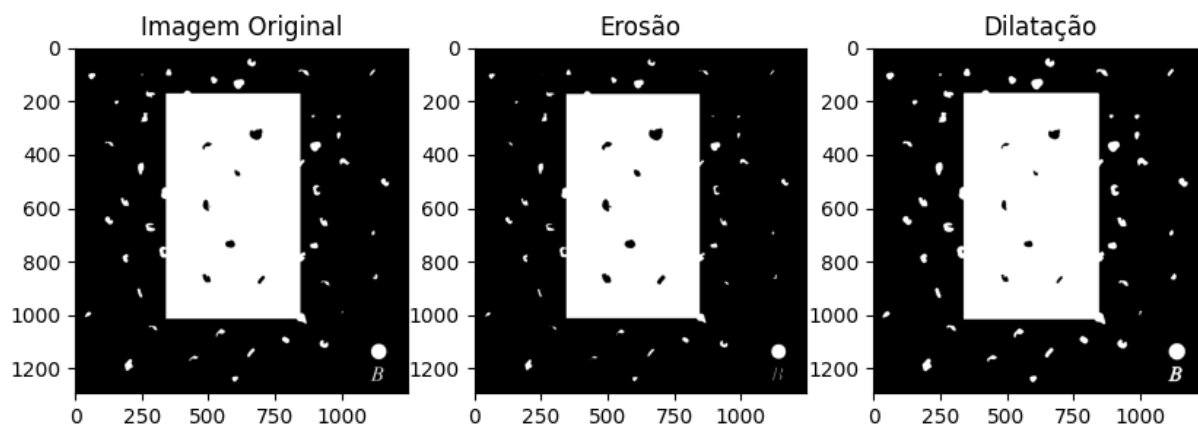


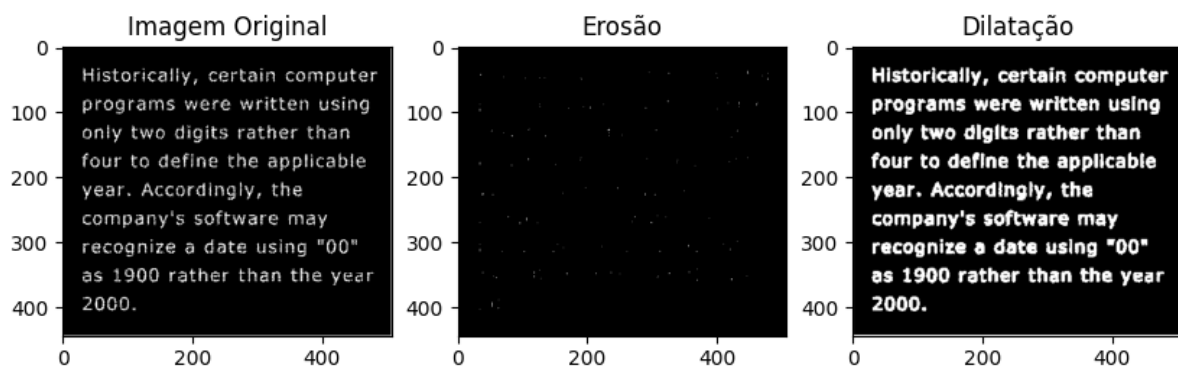
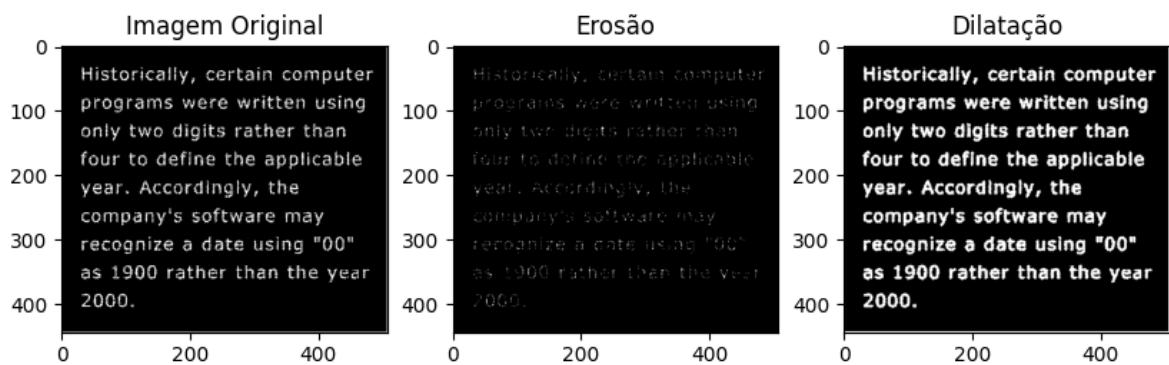
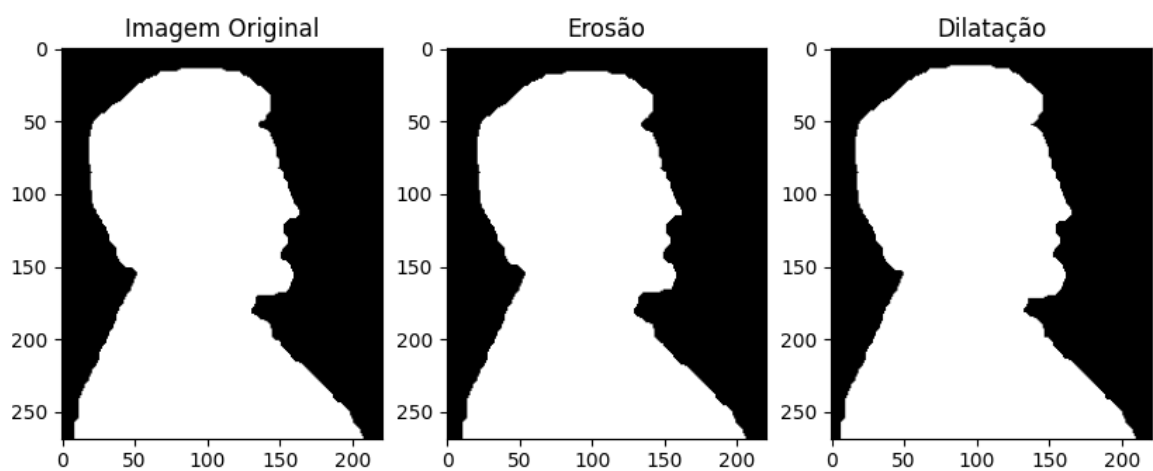
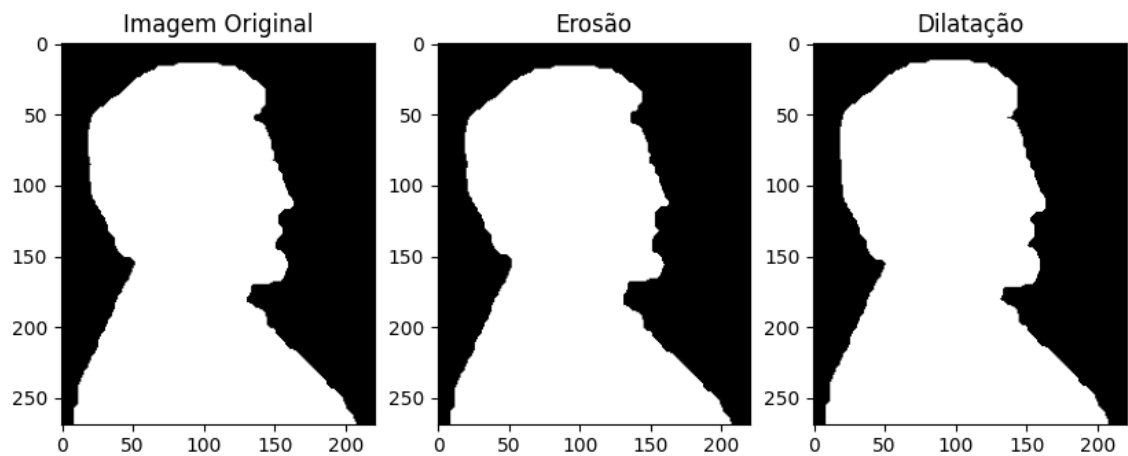


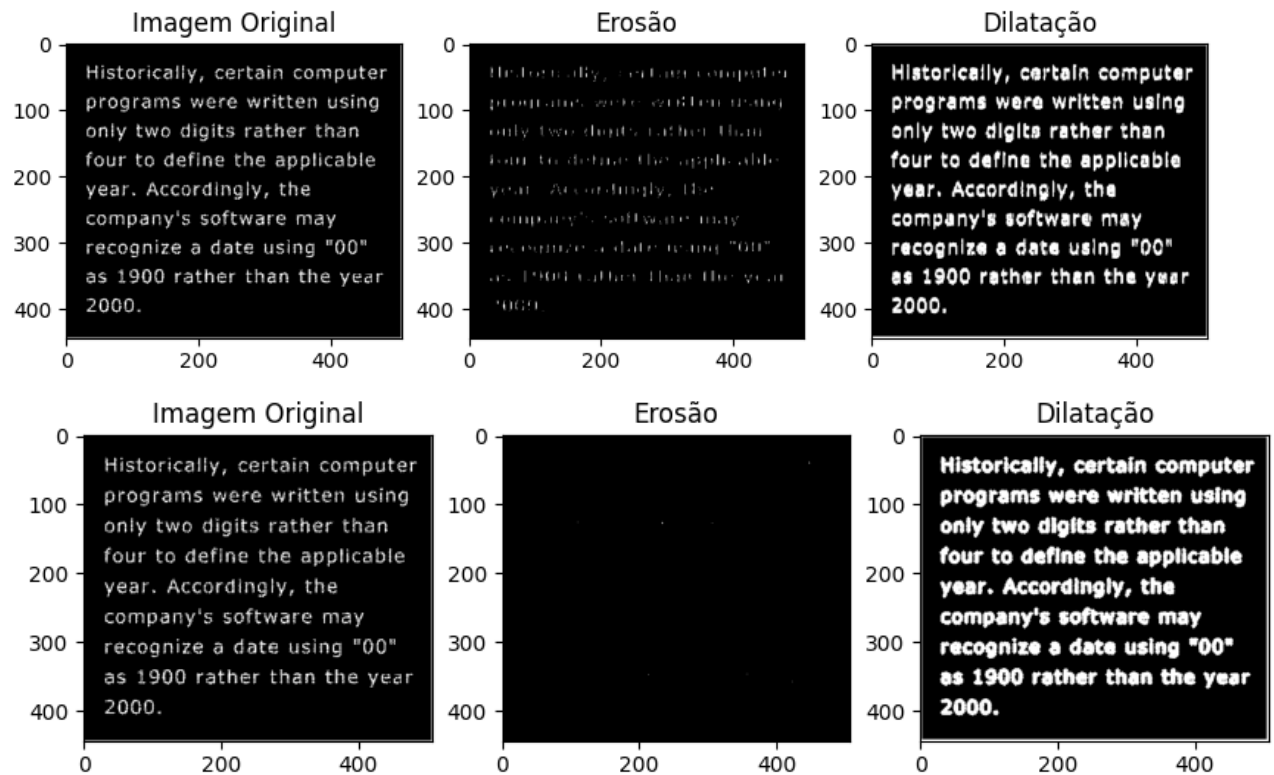




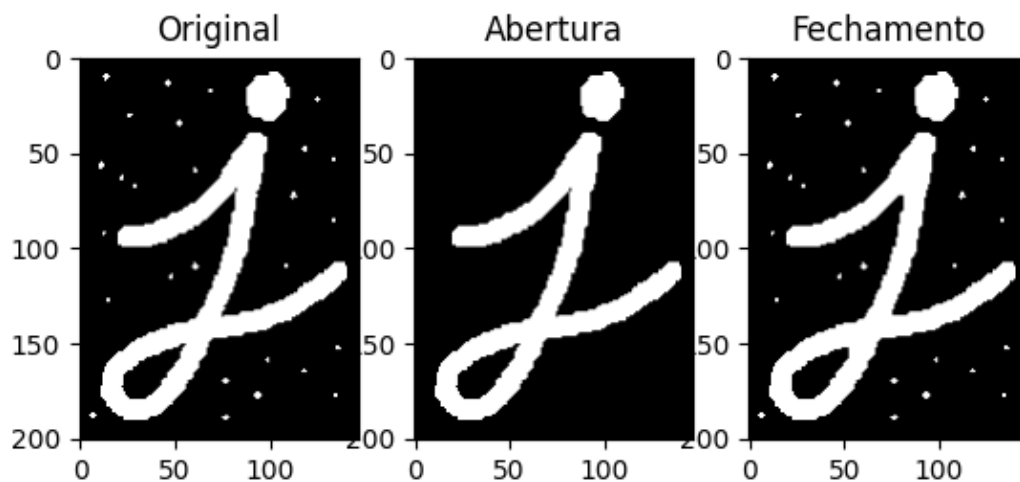


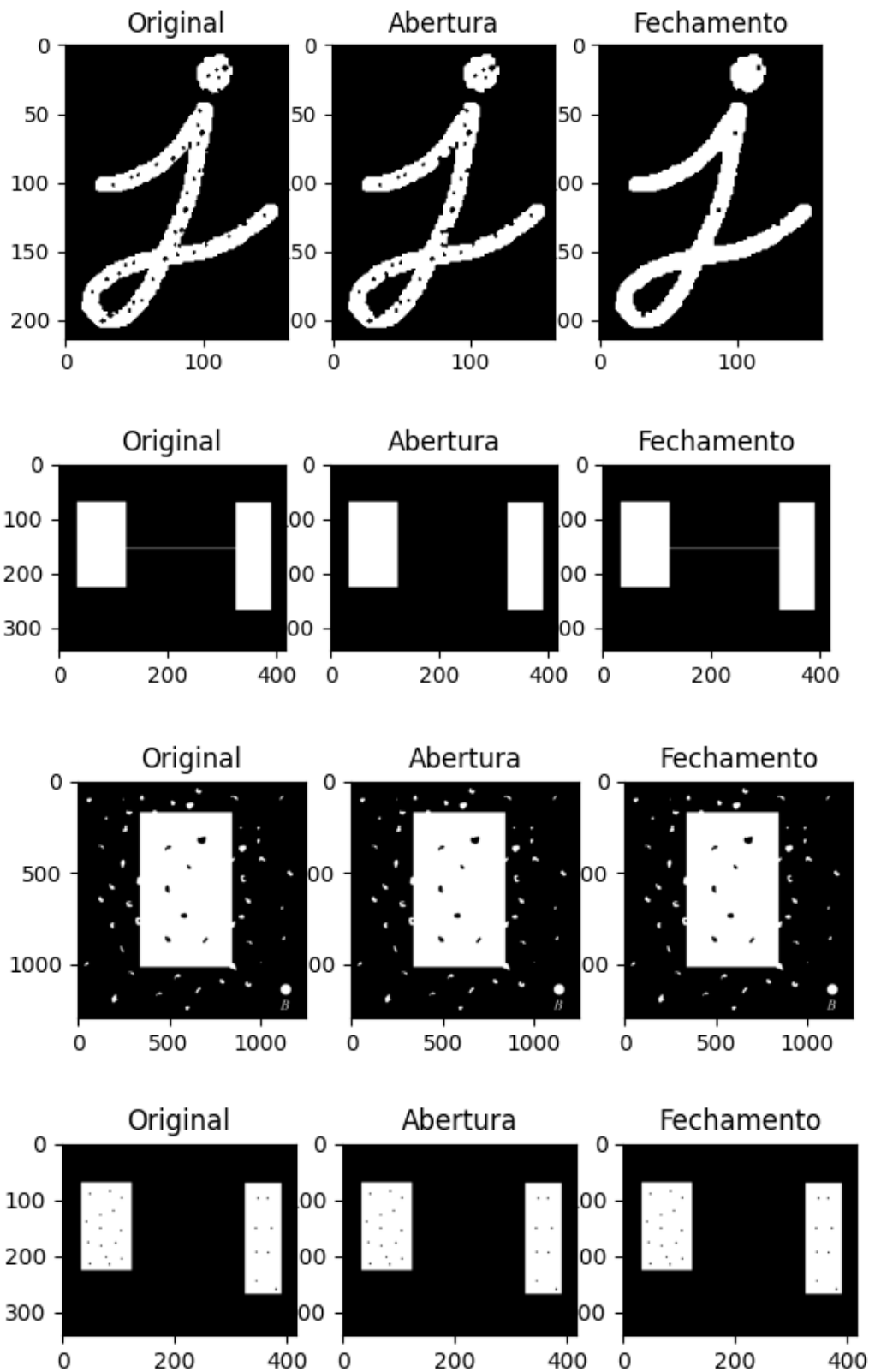






2)

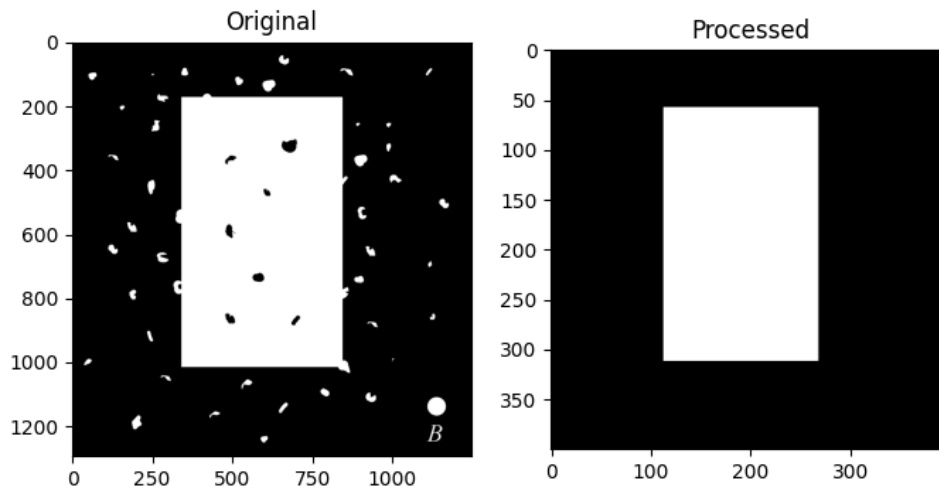




3.

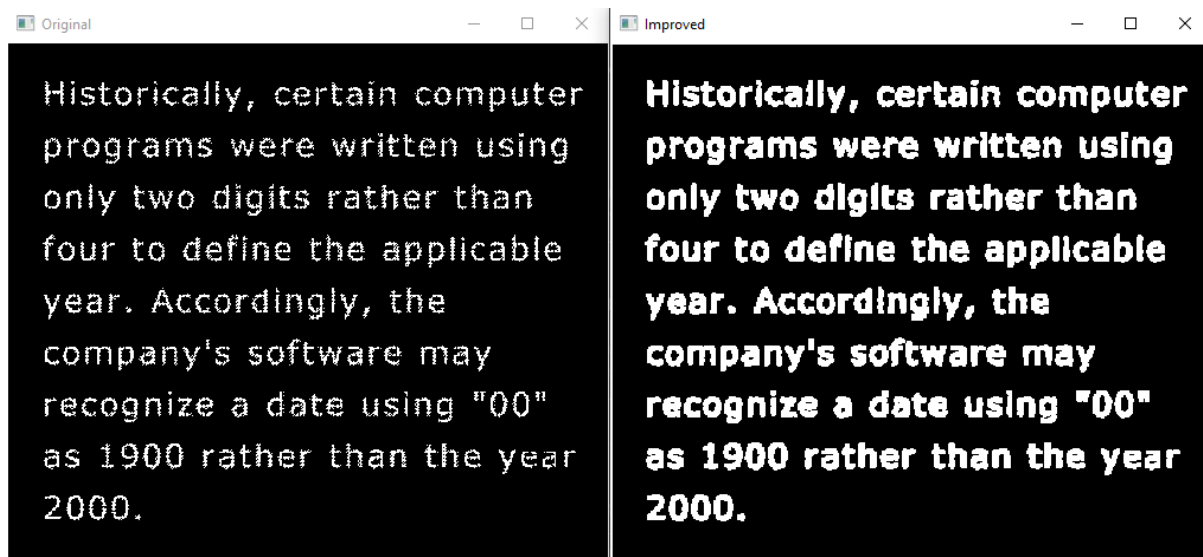
1. Erosão: Remover os pixels pretos da borda do retângulo.
2. Dilatação: Expandir o retângulo para melhor visualização.

3. Fechamento: Remover os pixels brancos que estão fora do retângulo.
4. A erosão removerá os pixels pretos da borda do retângulo, deixando-o com um contorno mais claro.
5. A dilatação expandirá o retângulo, tornando-o mais claro.
6. O fechamento final removerá os pixels brancos que estão fora do retângulo, deixando apenas o retângulo branco ao centro.



4.

A dilatação é uma boa opção para reduzir o ruído “salt and pepper”, e melhorar a qualidade de imagem para visualização



5. Quais operações seriam necessárias para extrair apenas a borda da imagem h)? Implemente essas operações.



Inicialmente, será necessário aplicar a operação de dilatação para realçar as bordas, posteriormente, aplicar a operação de erosão para refinar as bordas. Dessa forma, logo após é necessário, calcular as bordas subtraindo a imagem erodida da imagem dilatada, por fim aplicar uma limiarização para destacar as bordas.

6.Github

<https://github.com/paulos00/Morfologia>