USER GUIDED IMAGE COLORIZATION

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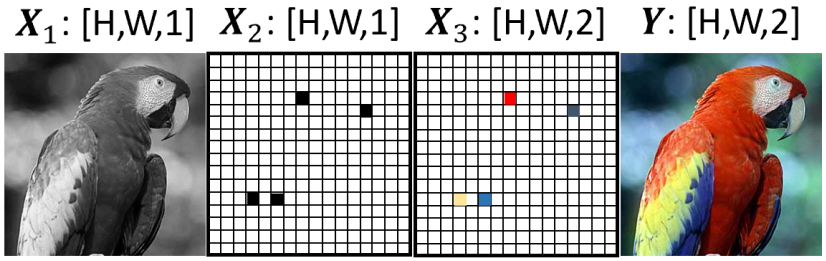
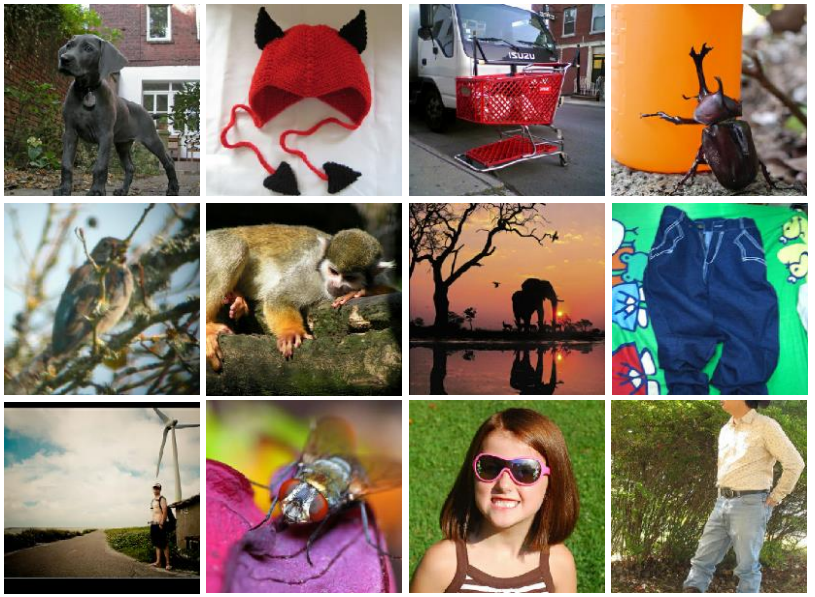
INPUT PIPELINE AND ARCHITECTURE

Input Pipeline:

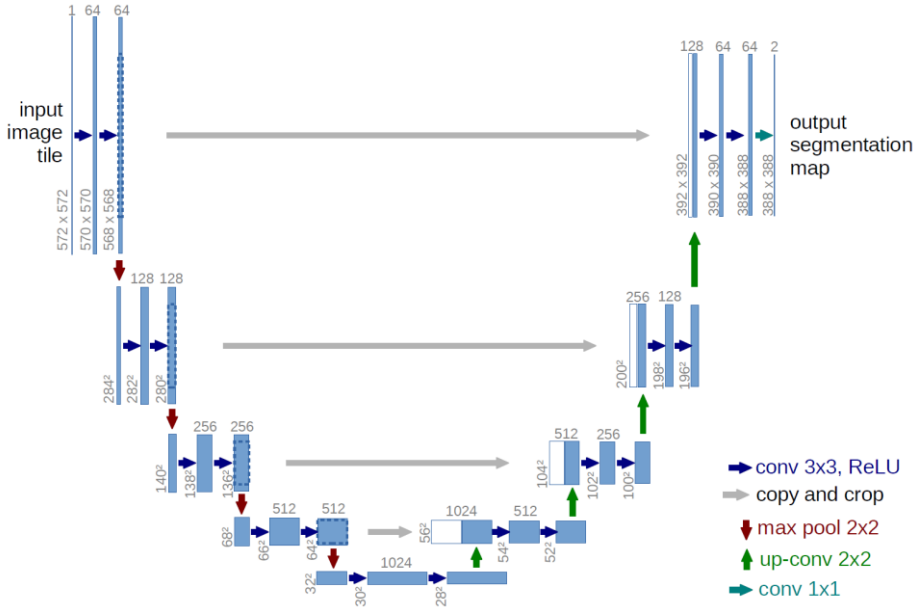
- Filtered ImageNet
- Resize, Crop, Convert to YUV
- Simulate user input



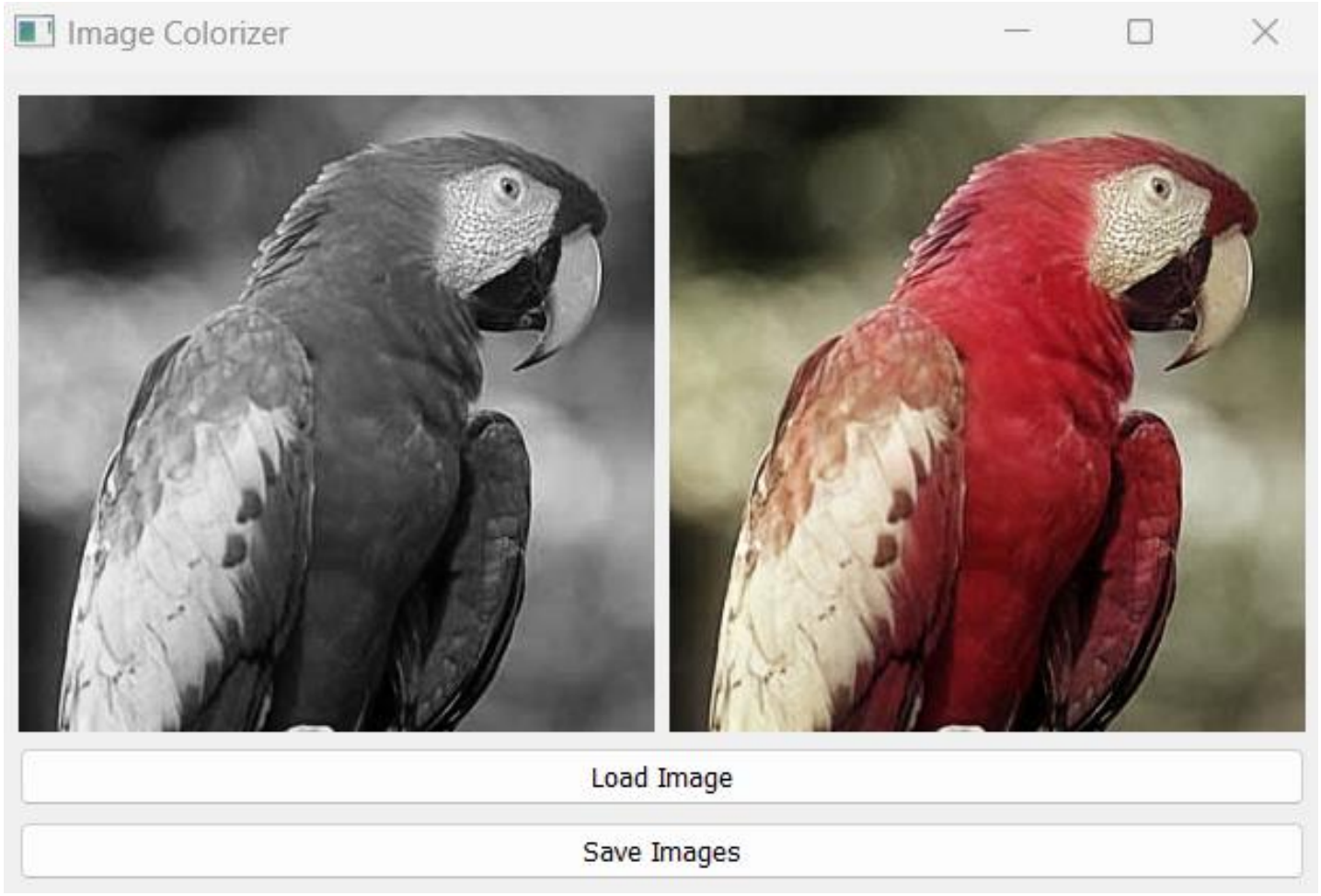


Architecture:

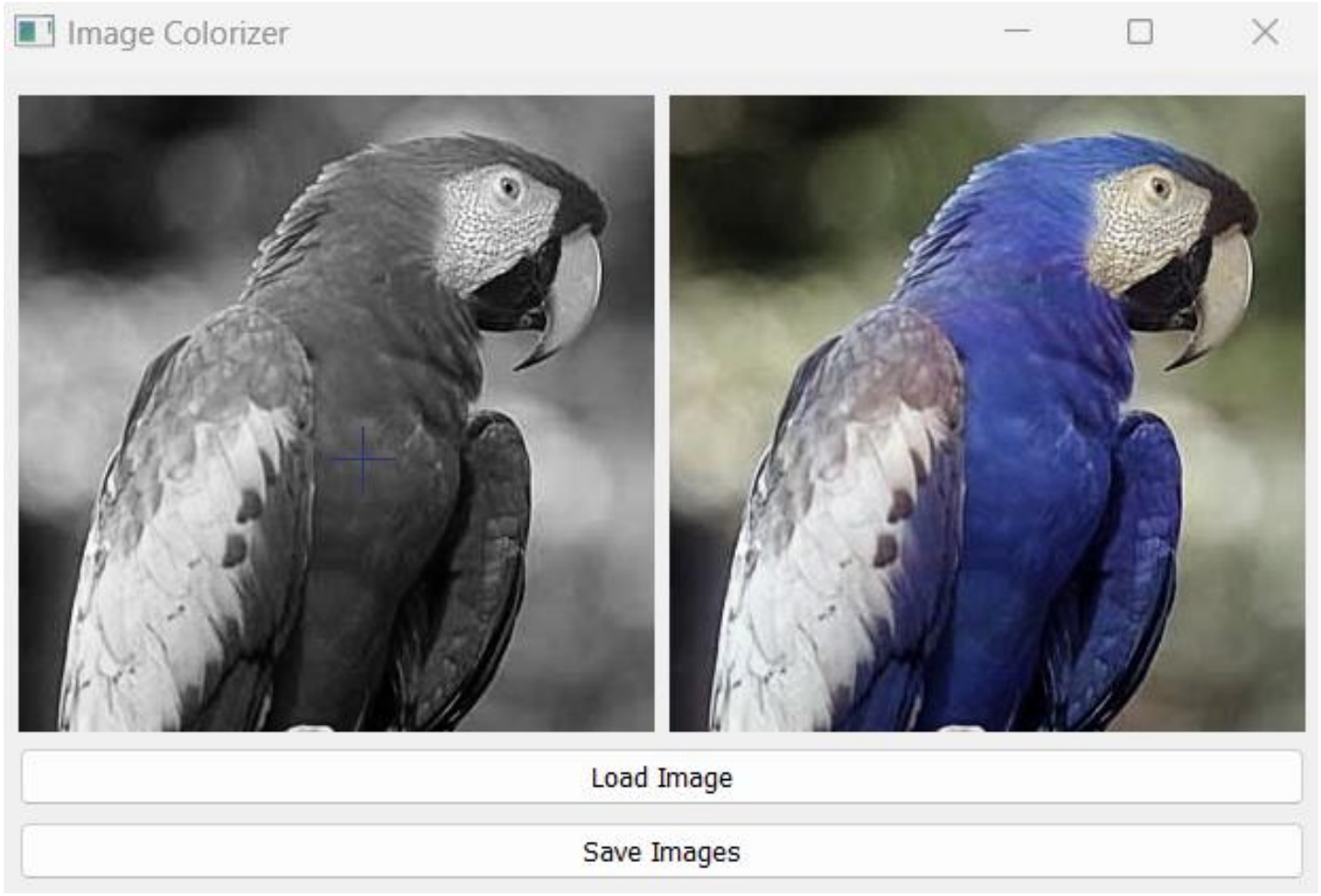
- U-Net
- Customizable width and depth



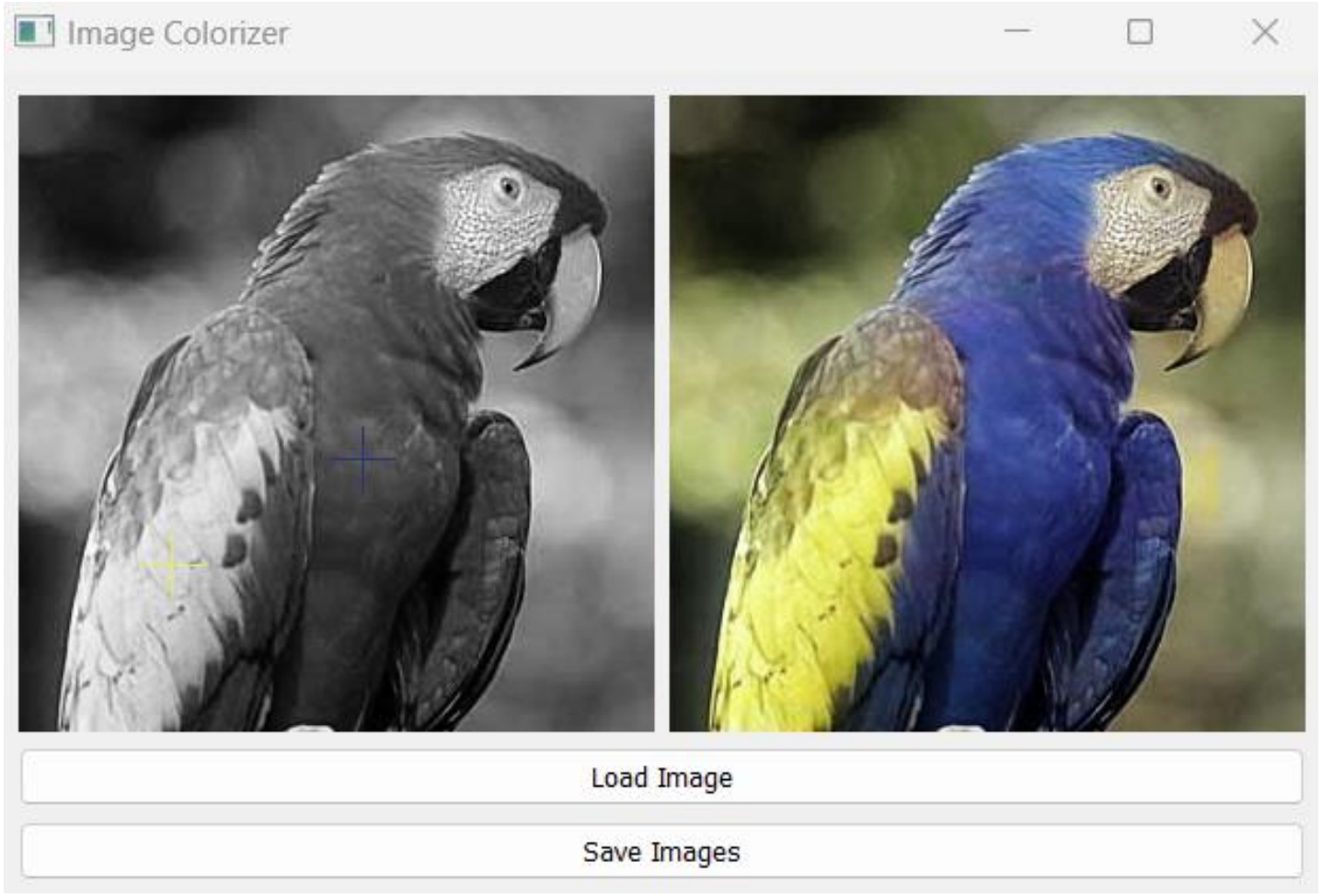
USER INTERFACE



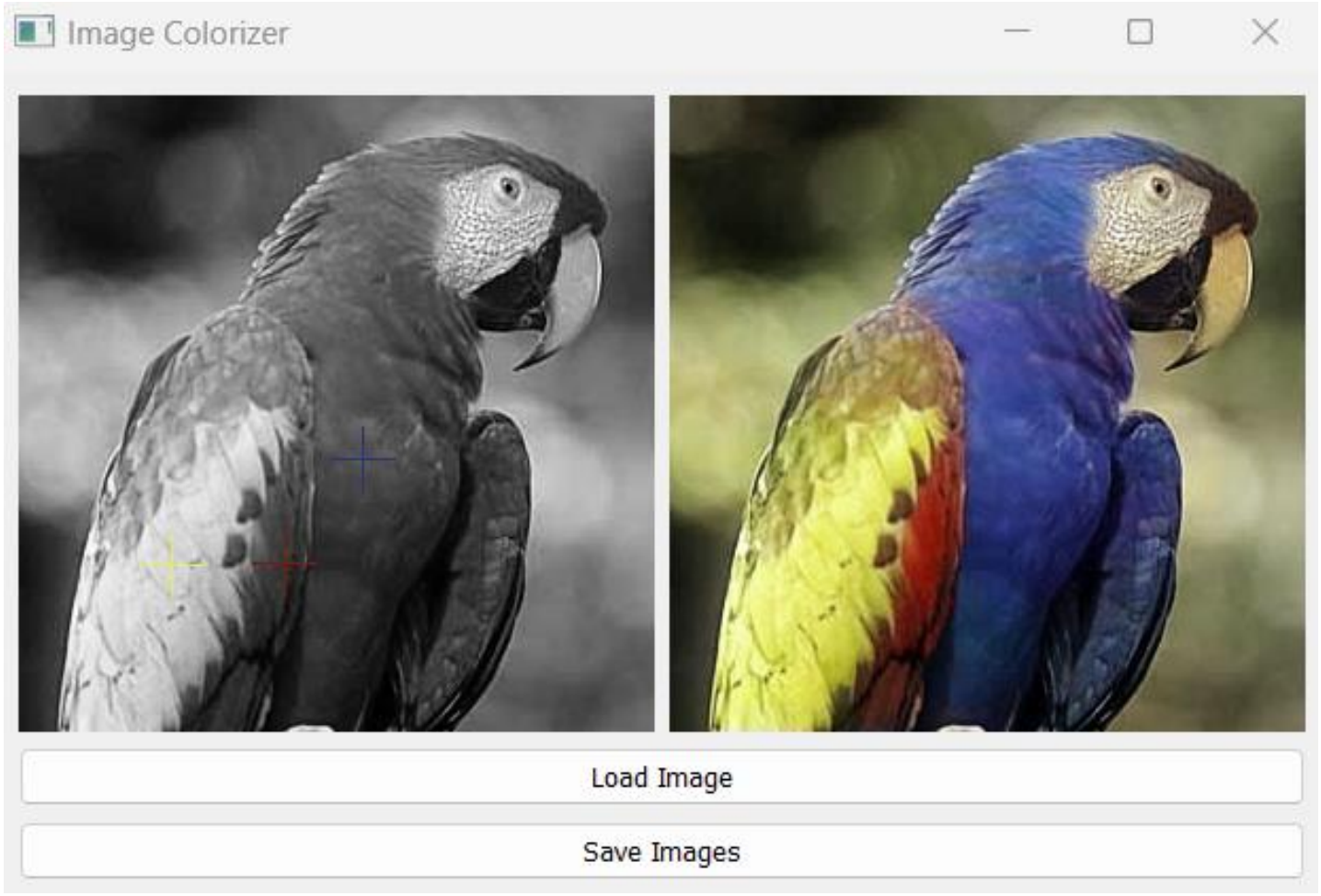
USER INTERFACE



USER INTERFACE



USER INTERFACE



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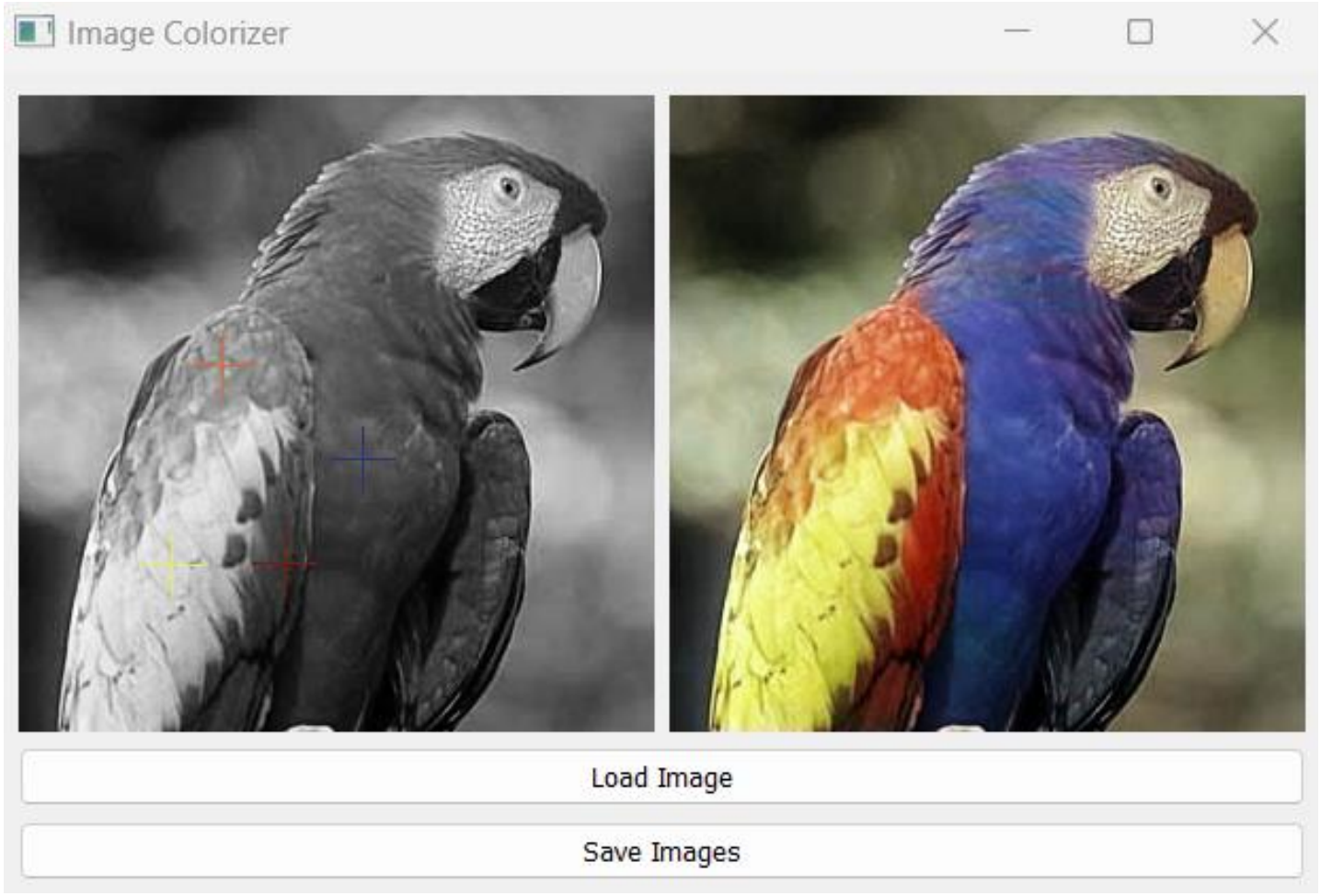

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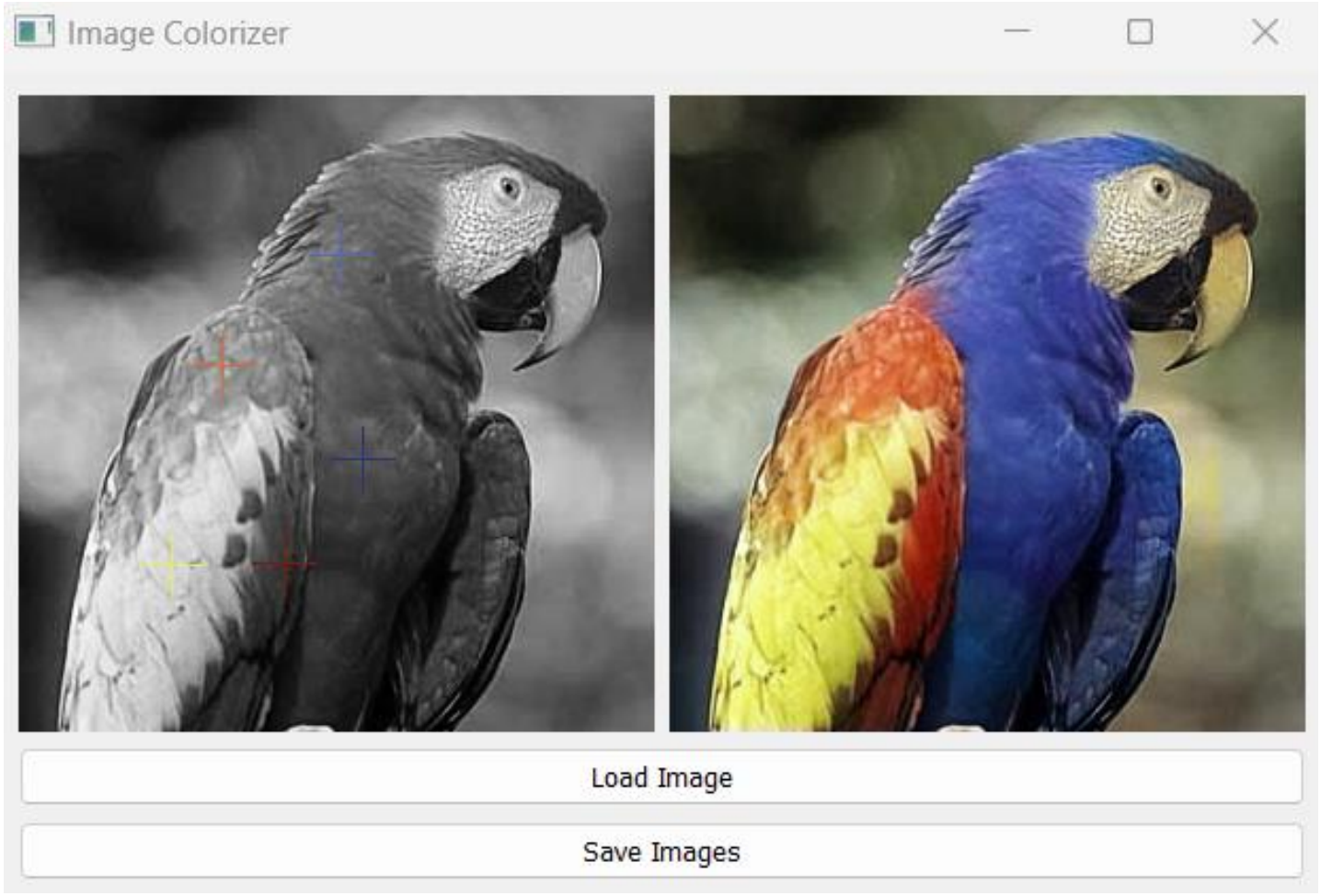

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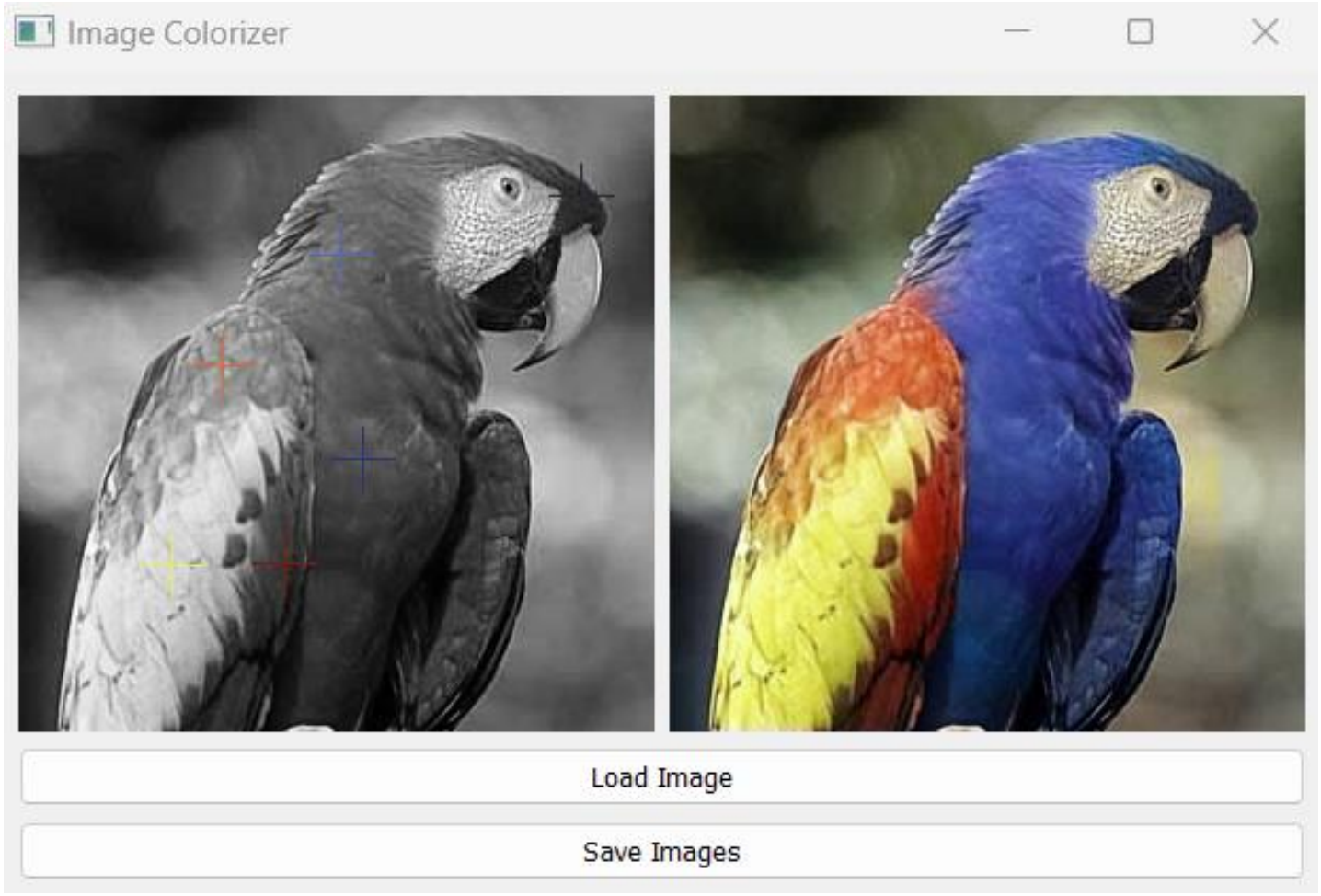

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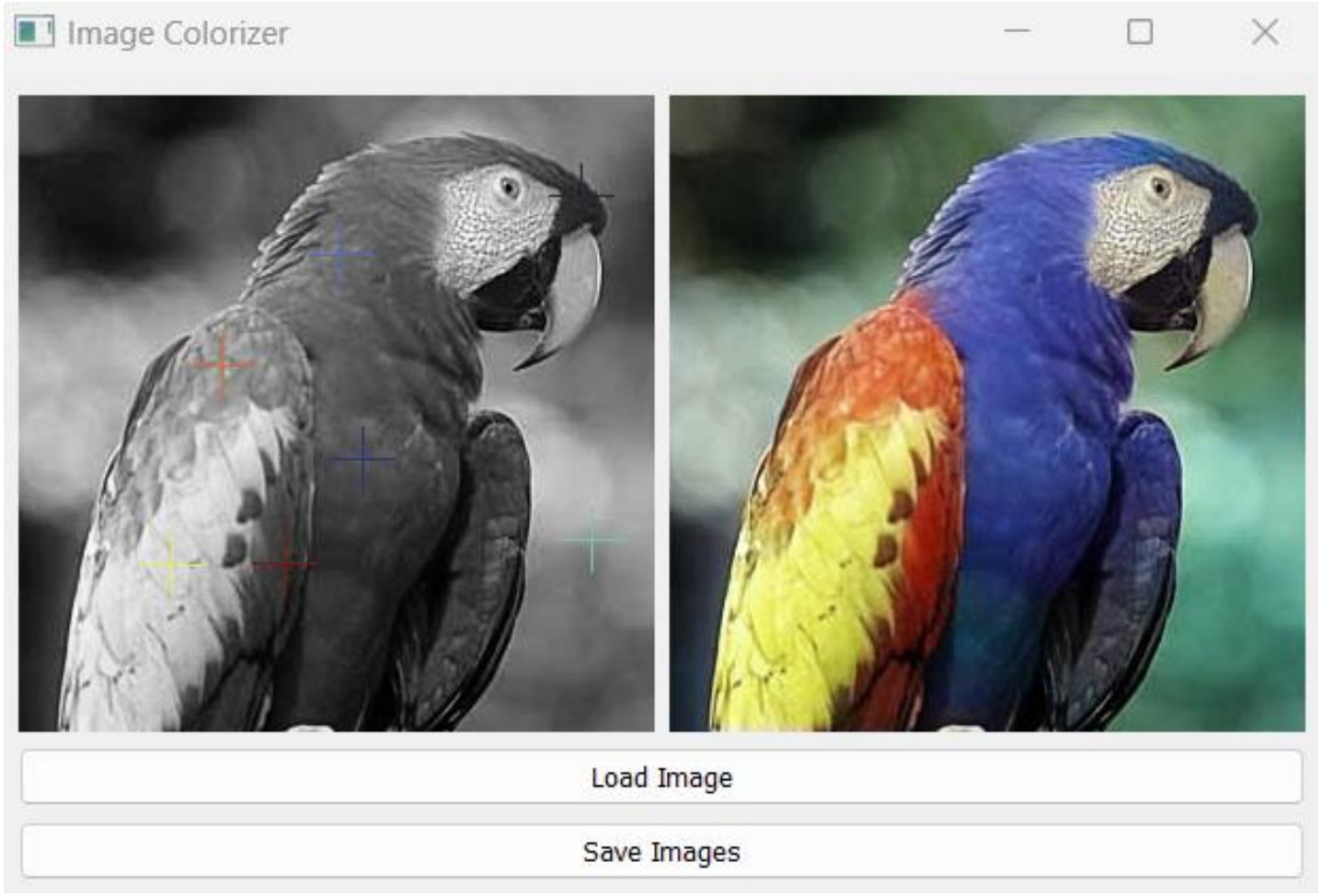
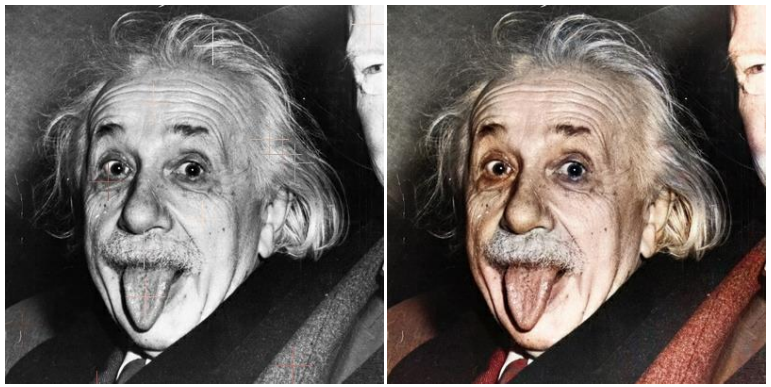


EXAMPLE COLORIZATIONS



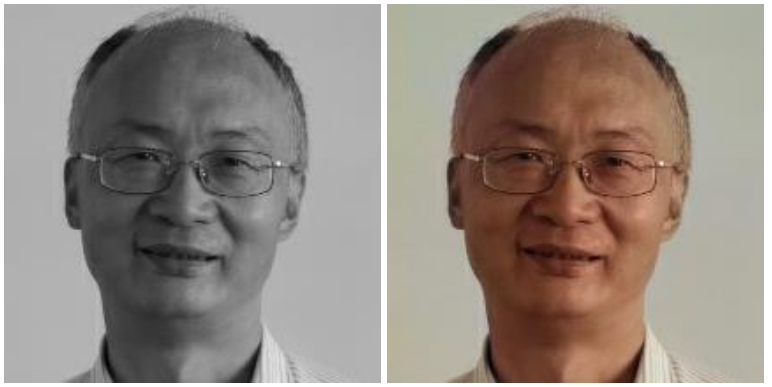


IMAGE SOURCES

[Parrot] https://de.wikipedia.org/wiki/Papageien

[Hindenburg] https://en.wikipedia.org/wiki/Hindenburg_disaster

[ImageNet] Deng et al, Imagenet: A large-scale hierarchical image database

[Unet] O. Ronneberger et al, U-Net: Convolutional networks for biomedical image segmentation

[Bird] Deng et al, Imagenet: A large-scale hierarchical image database

[Einstein] https://www.faz.net/aktuell/wissen/physik-mehr/relativitaetstheorie-schwer-was-los-in-der-raumzeit-1198164.html

[Lighthouse] https://www.facebook.com/profile.php?id=100064758723669

[Flower] https://www.amazon.de/Japanische-Räucherstäbchen-Rauchstäbchen-Natürlichen-Entspannung/dp/B09TJRPHYN?th=1

[Boat] https://www.ebay.de/itm/123835179513

[ProfYang] https://www.iss.uni-stuttgart.de/institut/team/Yang-00004/