## Cipher Stamp Pro 3.0

November 25, 2023

## 1 Model Loading

The code loads a pre-trained model that has been previously created. This model has learned patterns and features from a set of signature images.

## 2 Image Preprocessing Function

- 1. An image preprocessing function is defined to convert images into a format suitable for the model.
- 2. It resizes the images to a standard size (224x224 pixels) and normalizes pixel values.

## 3 Image Similarity Calculation Function

- 1. A function is created to calculate the similarity between two images using the pretrained model.
- 2. The model generates embeddings (representations) for each image.
- 3. The similarity score is computed using the Histogram Intersection method.
- 4. Depending on the score, the function categorizes the similarity into three labels: "Signatures Match," "Model is Indecisive," or "Signatures Do Not Match."

In summary, the code uses a pre-trained model to generate embeddings for two images. The similarity between the images is determined based on the Histogram Intersection Score, and labels are assigned accordingly. The model has been trained to understand patterns in signatures, and the code provides a simple way to assess similarity between two signature images.