WHAT IS CLAIMED IS:

1. A computer-implemented method comprising:

receiving, by a computing unit, an image of a payment card and one or more details associated with the payment card, wherein the payment card comprises a plurality of characters;

determining, by the computing unit, a derivative of the image based on the one or more details;

determining, by the computing unit, a horizontal sum of pixel values for a plurality of rows in the image based on the derivative of the image;

identifying, by the computing unit, one or more Regions of Interest (ROIs) in the image by comparing the horizontal sum of pixel values with a predefined first threshold;

extracting, by the computing unit, one or more characters from the plurality of characters, in the one or more ROIs using one or more peak values in a histogram of the one or more ROIs; and

recognizing, by the computing unit, each of the one or more characters extracted from the one or more ROIs using a trained Artificial Intelligence (AI) technique, wherein the recognized one or more characters are provided to one or more applications for performing one or more actions,

wherein extracting the one or more characters comprises:

selecting the one or more peak values in the histogram in a descending order based on a magnitude of the one or more peak values; and

determining a vertical sum of pixel values adjacent to the selected one or more peak values.

2. The method of claim 1, wherein the one or more details comprise at least one of a dimension of the payment card, a spatial location of the one or more ROIs, a presence and a spatial location of a microchip, and a presence and a spatial location of a logo.

3. The method of claim 1, wherein determining the derivative of the image comprises computing a convolution of pixel values in the image with filter values of a kernel.

4. The method of claim 1, wherein the horizontal sum of pixel values is determined by adding pixel values of one or more rows among the plurality of rows in the image.

5. The method of claim 4, wherein the horizontal sum of pixel values is computed for the one or more rows among the plurality of rows in the image from a top portion of the image through a bottom portion of the image.

6. The method of claim 1, wherein the horizontal sum of pixel values greater than the predefined first threshold indicates a presence of one or more characters of the payment card in one or more rows in the image, and the horizontal sum of pixel values less than the predefined first threshold indicates an absence of one or more characters of the payment card in one or more rows in the image.

7. The method of claim 1, wherein each of the one or more ROIs comprises one or more rows of the image among the plurality of rows, wherein the one or more rows comprise the one or more characters.

8. The method of claim 1, wherein extracting the one or more characters further comprises:

comparing the vertical sum of pixel values adjacent to the selected one or more peak values with a predefined second threshold; and

aggregating one or more columns adjacent to a column of the selected one or more peak values based on the comparison with the predefined second threshold.

9. The method of claim 8, wherein the vertical sum of pixel values is determined by adding, within the one or more ROIs, pixel values in the one or more columns adjacent to the column of the selected one or more peak values in the image.

10. The method of claim 1, wherein the trained AI technique is a trained convolutional neural network-based deep learning algorithm.

11. The method of claim 1, wherein training the AI technique comprises:

providing a second plurality of characters as input to the AI technique, wherein a desired output of the AI technique for the second plurality of characters is known;

comparing output of the AI technique with the desired output; and

adapting one or more parameters of the AI technique using a supervised learning technique based on the comparison.

12. A computing unit for character recognition comprising:

a processor; and

a memory communicatively coupled to the processor, wherein the memory stores processor instructions, which, on execution, causes the processor to:

receive an image of a payment card and one or more details associated with the payment card, wherein the payment card comprises a plurality of characters;

determine a derivative of the image based on the one or more details;

determine a horizontal sum of pixel values for a plurality of rows in the image based on the derivative of the image;

identify one or more Regions of Interest (ROIs) in the image by comparing the horizontal sum of pixel values with a predefined first threshold;

extract one or more characters from the plurality of characters, in the one or more ROIs using one or more peak values in a histogram of the one or more ROIs; and

recognize each of the one or more characters extracted from the one or more ROIs using a trained Artificial Intelligence (AI) technique, wherein the recognized one or more characters are provided to one or more applications for performing one or more actions,

wherein the processor is configured to extract the one or more characters by:

selecting the one or more peak values in the histogram in a descending order based on a magnitude of the one or more peak values; and

determining a vertical sum of pixel values adjacent to the selected one or more peak values.

13. The computing unit of claim 12, wherein the processor is configured to receive the one or more details comprising at least one of a dimension of the payment card, a spatial location of the one or more ROIs, a presence and a spatial location of a microchip, and a presence and a spatial location of a logo.

14. The computing unit of claim 12, wherein the processor is configured to determine the derivative of the image by computing a convolution of pixel values in the image with filter values of a kernel.

15. The computing unit of claim 12, wherein the processor is configured to determine the horizontal sum of pixel values by adding pixel values of one or more rows among the plurality of rows in the image.

16. The computing unit of claim 12, wherein the processor is configured to compute the horizontal sum of pixel values for one or more rows among the plurality of rows in the image from a top portion of the image through a bottom portion of the image.

17. The computing unit of claim 12, wherein the processor is configured to determine a presence of one or more characters of the payment card in one or more rows in the image when the horizontal sum of pixel values is greater than the predefined first threshold and determine an absence of one or more characters of the payment card in one or more rows in the image when the horizontal sum of pixel values is less than the predefined first threshold.

18. The computing unit of claim 12, wherein the processor is further configured to extract the one or more characters by:

comparing the vertical sum of pixel values adjacent to the selected one or more peak values with a predefined second threshold; and

aggregating one or more columns adjacent to a column of the selected one or more peak values based on the comparison with the predefined second threshold.

19. The computing unit of claim 18, wherein the processor is configured to determine the vertical sum of pixel values by adding, within the one or more ROIs, pixel values of the one or more columns adjacent to the column of the selected one or more peak values in the image.

20. The computing unit of claim 12, wherein the processor is configured to train the AI technique by:

providing a second plurality of characters as input to the AI technique, wherein a desired output of the AI technique for the second plurality of characters is known;

comparing output of the AI technique with the desired output; and

adapting one or more parameters of the AI technique using a supervised learning technique based on the comparison.