# Problem-Solution fit canvas 2.0

Purpose / Vision

Define CS, fit into CC

### 1. CUSTOMER SEGMENT(S) — CS

Recognise the handwritten digit detection.

### 6. CUSTOMER — CC

Its helpful for customers such as postal mail sorting,bank check processing form data entry.to ensure effective and reliable approaches for recognition of handwritten digits and reliable approaches for recognition of handwritten digits and banking operation free

### 5. AVAILABLE SOLUTIONS — AS

Lot of available solutions are there to recognize handwritten digits including deep learning/cnn,SVM,Gausdsian Naïve Bayes,KNN,decision tree,Random process.

Explore AS, differentiate

Focus on J&P, tap into BE, understand RC

### 2. JOBS-TO-BE-DONE / PROBLEMS — J&P

To recognize the handwritten digits are more accuracy in CNN model

### 9. PROBLEM ROOT CAUSE — RC

Handwriting recognition helps a transform the writings in the paper to a text document format which can also said as readable electronic format.historical facts can be stored reviewed and shared easily too many people. to ensure effective and reliable approaches for recognition of handwritten digits and banking operation free

### 7. BEHAVIOUR — BE

Deep learning methods can now turn natural language into synthesized iages,here,written descriptions for images are used to build a new hallucinated Image.

Focus on J&P, tap into BE, understand RC

Identify strong TR & EM

### 3. TRIGGERS — N TR

The perils of poor handwriting .perhaps the most obvious problem when processing handwritten forms during data capture process is poor quality

### 4. EMOTIONS: BEFORE / AFTER — EM

Before: Handwritten text classifiers were first required for classification of postalmail.using Scanning equipment handwired logic recognized monospaced fonts.
After: neural network are able to learn features from analyzing a dataset and classify an unseen Image based on weighs.features are extracted in convolutional layer where kernalis passed over the image to extract certain feature.in end result multiple kernel learn all features within a dataset in order to make classification.

### 10. YOUR SOLUTION — SL

Solutions for handwritten detection to using CNN and aother models to train Our input dataset it gives a above 90% accuracy output for us.

### 8. CHANNELS of BEHAVIOUR — CH

8.1 ONLINE
Handwriting recognition (or HWR) is the ability of a computer to receive and interpret intelligible handwritten input from sources such as paper documents, photographs, touch-screens and other devices.

8.2 OFFLINE
In offline handwriting recognition,text is analysed after being written.the only information that can be analysed in binary output of a character against a backgroung.although shifts towards digital stylus for writing gives more information such as pen stroke,pressure and speed of writing still a necessity for offline methods..

Extract online & offline CH of BE



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