Problem-Solution fit

Purpose / Vision

1. CUSTOMER SEGMENT(S) `CS`

Who is your customer?
i.e. working parents of 0-5 y.o. kids

The customer base is anyone who want to identify or recognize handwritten digits.

5. CUSTOMER CONSTRAINTS `CC`

What constraints prevent your customers from taking action or limit their choices of solutions? i.e. spending power, budget, no cash, network connection, available devices.

The main constraints would include,

1. Not educated about this concept.
2. Not knowing how to use application.

6. AVAILABLE SOLUTIONS `AS`

Which solutions are available to the customers when they face the problem or need to get the job done? What have they tried in the past? What pros & cons do these solutions have? i.e. pen and paper is an alternative to digital notetaking

1.Our system aims to accurately recognize digit given as the input in the form of image or document in order to quickly identify different handwriting styles and to minimize the need for human interpretation.
.2 We achieve this by using MNIST Dataset, which contains 60,000 handwritten digit images for the classifier training and 10,000 handwritten digit images for the classifier testing. Finally, the recognized digit will be displayed in the user interface

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

Which jobs-to-be-done (or problems) do you address for your customers? There could be more than one; explore different sides.

1. Assist users and help them identify handwritten digits digitally.
2. Educate the users about how to use the application.

9. PROBLEM ROOT CAUSE `RC`

What is the real reason that this problem exists? What is the back story behind the need to do this job?
i.e. customers have to do it because of the change in regulations.

1. Manual written are difficult to recognize because there various handwriting .
2. It is difficult when processing bank checks.
3. It is useful for recognizing Vehicle number plates.

7. BEHAVIOUR `BE`

What does your customer do to address the problem and get the job done?
i.e. directly related: find the right solar panel installer, calculate usage and benefits; indirectly associated: customers spend free time on volunteering work (i.e. Greenpeace)

Since manual work can cause inaccuracy,uncertainity.This solution provides accurate and certain results and it is also more efficient and effective.

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

3. TRIGGERS

Manual work done by customers can causes uncertainty. But this approach recognizes number plates of vehicles, numeric entries in forms filled up by hand (say — tax forms), postal mail sorting, bank check processing, form data entry and makes understanding better for the customers.

4. EMOTIONS: BEFORE / AFTER

How do customers feel when they face a problem or a job and afterwards?
i.e. lost, insecure > confident, in control - use it in your communication strategy & design.

Before: Inaccuracy, uncertainty ,difficult to analyze.
After: Certainty, Accuracy, efficient and effective.

10. YOUR SOLUTION

Our system aims to accurately recognize digit given as the input in the form of image or document in order to quickly identify different handwriting styles and to minimize the need for human interpretation. A few applications of the system would be postal mail sorting, bank cheque processing, form data entry, etc. We aim to develop 7-layered CNN model with 5-hidden layer along with Gradient descent and Back propagation model to find and compare accuracy on different Epochs. We achieve this by using MNIST Dataset, which contains 60,000 handwritten digit images for the classifier training and 10,000 handwritten digit images for the classifier testing. Finally, the recognized digit will be displayed in the user interface

8. CHANNELS of BEHAVIOUR

8.1 ONLINE
What kind of actions do customers take online? Extract online channels from #7

Promote the browser extension by leaving a review.

8.2 OFFLINE
What kind of actions do customers take offline? Extract offline channels from #7 and use them for customer development.

Educate more people about the importance of handwritten digit recognition.. They could also ask their acquaintances to use the browser extension.