Define

CS,

fit into

1. CUSTOMER SEGMENT(S)



J&P

- Customeí undeí banking sectoí.
- Customeí in post offices foí aííanging letteís.

6. CUSTOMER CONSTRAINTS



- Customeís aíe not awaíe aboutthis application.
- Netwoík connectivity issues may
- Píoceduíe foi detecting the image may take some time.

5. AVAILABLE SOLUPIONS



- By Installing Digit Recognizeí app that is available on play stoíe.
- By using snapLogic websitewe can íecognize the handwiitten digits.

Explore AS, differentiate

2. JOBS-l'O-BE-DONE / PROBLEMS

JOBS-l'O-BE-DONE

• Postal Mail softing ,bank check piocessing ,Foim Data Entiy.

PROBLEMS

- Píocess getting slow to fecognize the digits.
- l'ime taken to scan and upload images is sloweí. píocess.

9. PROBLEM ROOL CAUSE



SL

- Customeís aíe not awaíe about this application.
- Netwoík connectivity issues may occui.
 - Píoceduíe foi detecting the image may take some time.

7. BEHAVIOUR

neuíal netwoíks and conventional neuíal netwoík cuífently píovide the best solutions to many píoblems in handwiitten digit iecognition

3. 1°RIGGERS

sometimes.



- 10. YOUR SOLUTION
 - become a vital scope and is appealingto many íeseaícheís because of its use in a vaíiety of machine leaíning

8. CHANNELS of BEHAVIOR **ONLINE**



It gives moíe efficient accuíacyfoí Handwiitten digits iecognition has finding the digits that ase uploaded as an image. Not able to guess the digits

l'o píovide efficient and íeliable techniquesfoí iecognition of handwiitten numeials by compaiing vaiious existing classification models.

4. EMOL'IONS: BEÏORE / AÏL'ER



BEFORE:

- l'o detect any handwiitten digits fiom vaiious souices is quite difficult.
- Photogíaphs, papeís and touch displays and classifying them into ten specified categoíies 0-9 is difficult.

AFI'ER

- l'he use of in-depth leaíning methods, human effoits can be ieduced.
- Low confidence on guessing the digits.

- and computeí vision applications.
- In íecent yeaís, neuíal netwoíks and conventional neuíal netwoíks cuííently píovide the best solutions tomany píoblems in handwiitten digit íecognition.
 A novel hybíid CNN SVMmodel foí handwiitten digit íecognition. 1 his hybíid model automatically extíacts featuíes fíom the íaw images and geneíates the píedictions.
- Nowadays the whole woild is a shift inthe digital woild. I'hey want eveiything in digital foim, they aie not ieady foi manual woik oi any manual handwiitten tiansaction. So they use this application.

 Online digital íecognition on PC tablets, posting zip codes, píocessing bank check íates, handwíiting numeíical categoíies (foíexampletax foíms) and moíe.

OÏÏLINE

 A complete offline application built using python libíaíies that uses a neuíal netwoík in oídeí to píedict thedigit díawn oveí scíeen. Modules
 Pensoíflow foí neuíal.