SKETCH-BASED WIREFRAMING

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INTRODUCTION

• Professional designers draw rough sketches, called wireframes, for UI layout
• Speed is key in effective wireframing while still giving the designer the ability to explore layout possibilities
• There are some limitations to the current existing systems
  • They use drag and drop
  • restrictive and uneasy for people who are used to sketching
• Create system for electronically sketching websites, opportunity to evaluate live design.
LITERATURE REVIEW

- **SILK**: Designer sketches on interface using a set of components & gestures, recognize them and notify what it believes user has drawn. [Landay 1996]

- **On-line Scribble Recognizer**: fast, simple and compact approach to recognize scribbles drawn with a stylus on a digitizing tablet. [Landay, 1995]

- **CALI**: identify shapes of different sizes and rotated at arbitrary angles, drawn with dashed, continuous strokes or overlapping lines. [Fonseca 2002]

- **FreeStyle (A Sketch based wire-framing tool)** – Identified convex hull of the sketches drawn and identified sketches based on the ratio of convex hull and bounding box. [Narendra et al, CPTTE, 2017]

- **No current web-based sketch wireframe tool**
- Recognize basic html elements from a wireframe sketch and develop a simple website
- Collect Data from users and store them as Images.
- Use the images to train the network and use it for classification.
- Regularization: Dropout rate of 0.5
DATA DESCRIPTION

• Data was collected from students of TAMU
• Sketches drawn were converted into images
• Images resized to 150 x150
RESULTS AND DISCUSSION

• Model is trained on 143 images. 100 epochs
  • Training - 114 images
  • Testing data - 29 images

• 5-fold Cross Validation Accuracy: 72.06%
  • Very less Data
  • Less Variation

• Weren’t able to do User Testing

• Enables non-techies to build their personal websites effortlessly

• Future: Get more data, use more elements, Real Time response
• THANK YOU. QUESTIONS?