Online trajectory recovery from offline handwritten Japanese kanji characters

Hung Tuan Nguyen, Cuong Tuan Nguyen, Tsubasa Nakamura, Masaki Nakagawa
Email: {ntuanhungh, ntcuong2103}@gmail.com, nakagawa@cc.tuat.ac.jp

- Handwriting variants from different writers
  - Represent variants by Gaussian Mixture Models.
- Touching & Crossing by multiple strokes cause ambiguities.
  - Use LSTM and Attention to deal with ambiguities.
- High variety of stroke orders in Kanji characters.
  - 1st and 2nd strokes in two characters are often written in the opposite orders.
  - Employ CNN to extract discriminative features from an input image.

Details of network

- Offline recognition was improved using the recovered trajectories.

Source: http://kanjivg.tagaini.net/viewer.html

Training database with online handwriting characters

- Compute the difference between ground-truth and recovered online strokes (reconstruct loss)
- Update model using reconstruct loss

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- Employ CNN to extract discriminative features from an input image.

- Use LSTM and Attention to deal with ambiguities.

- Represent variants by Gaussian Mixture Models.