

Signature forgery detection using RNN

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INTRODUCTION

Signature forgery detection is a critical task in the security and document verification industries. The possibility of signature forging has increased along with the use of digital documents. Forgery of a signature can have serious repercussions, including financial loss, identity theft, and legal troubles. Therefore, it is imperative to create efficient methods for identifying forged signatures.

OBJECTIVE

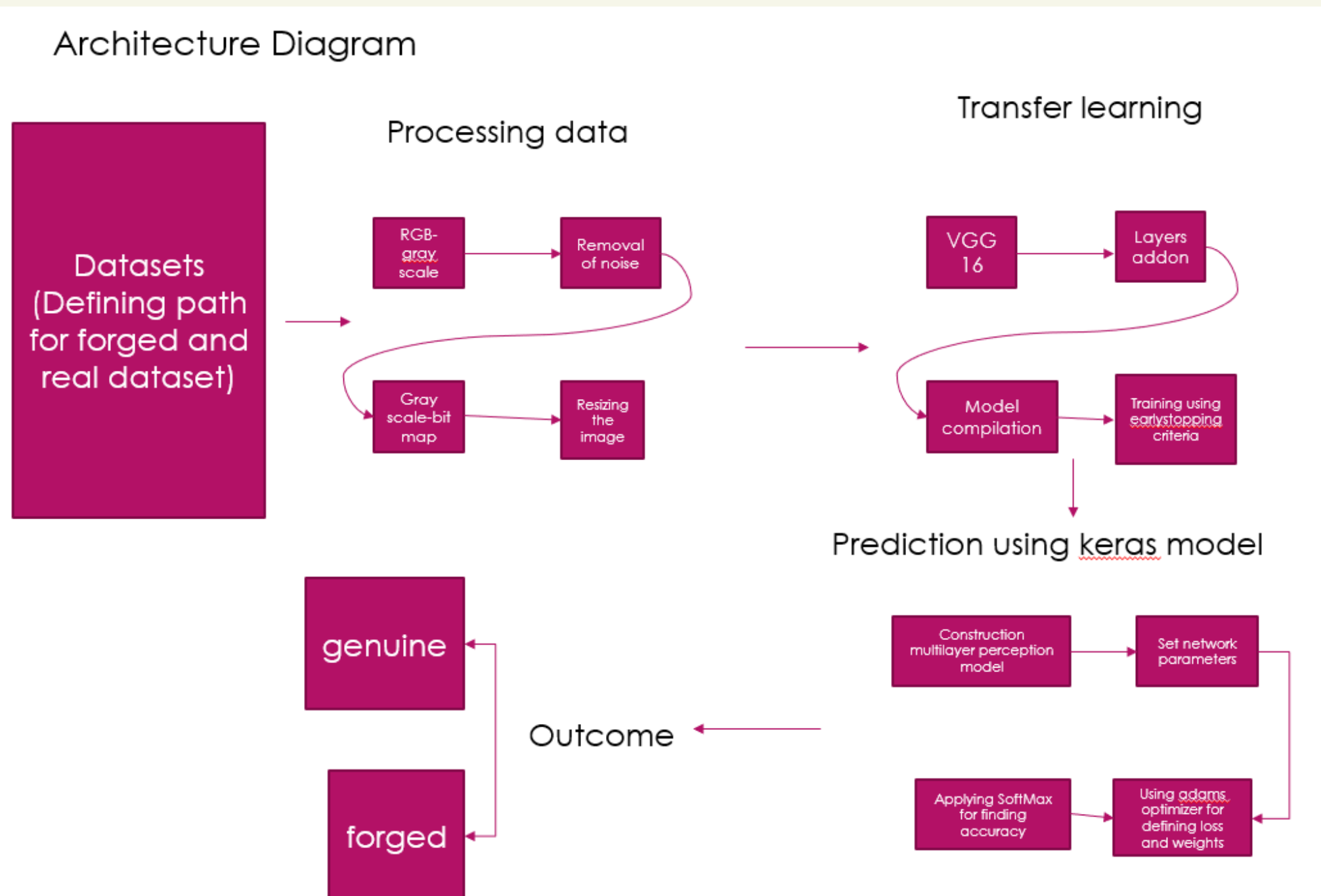
1. Data Preprocessing: Clean and preprocess the collected data to remove noise, standardize the signature format, and prepare it for Deep learning analysis.
2. Training the model to detect for fake signature using features like signature edge cuttings, pressure and speed of user signing. Harris algorithm can be used for detecting signature edge cuttings.
3. Data collection: gathering signatures.

MOTIVATION

Addressing a Critical Need: The forging of signatures is a major issue that can have detrimental effects on both individuals and organisations. This issue can be addressed and potential fraud can be avoided by creating a system that can recognise such forgeries.

METHODOLOGY

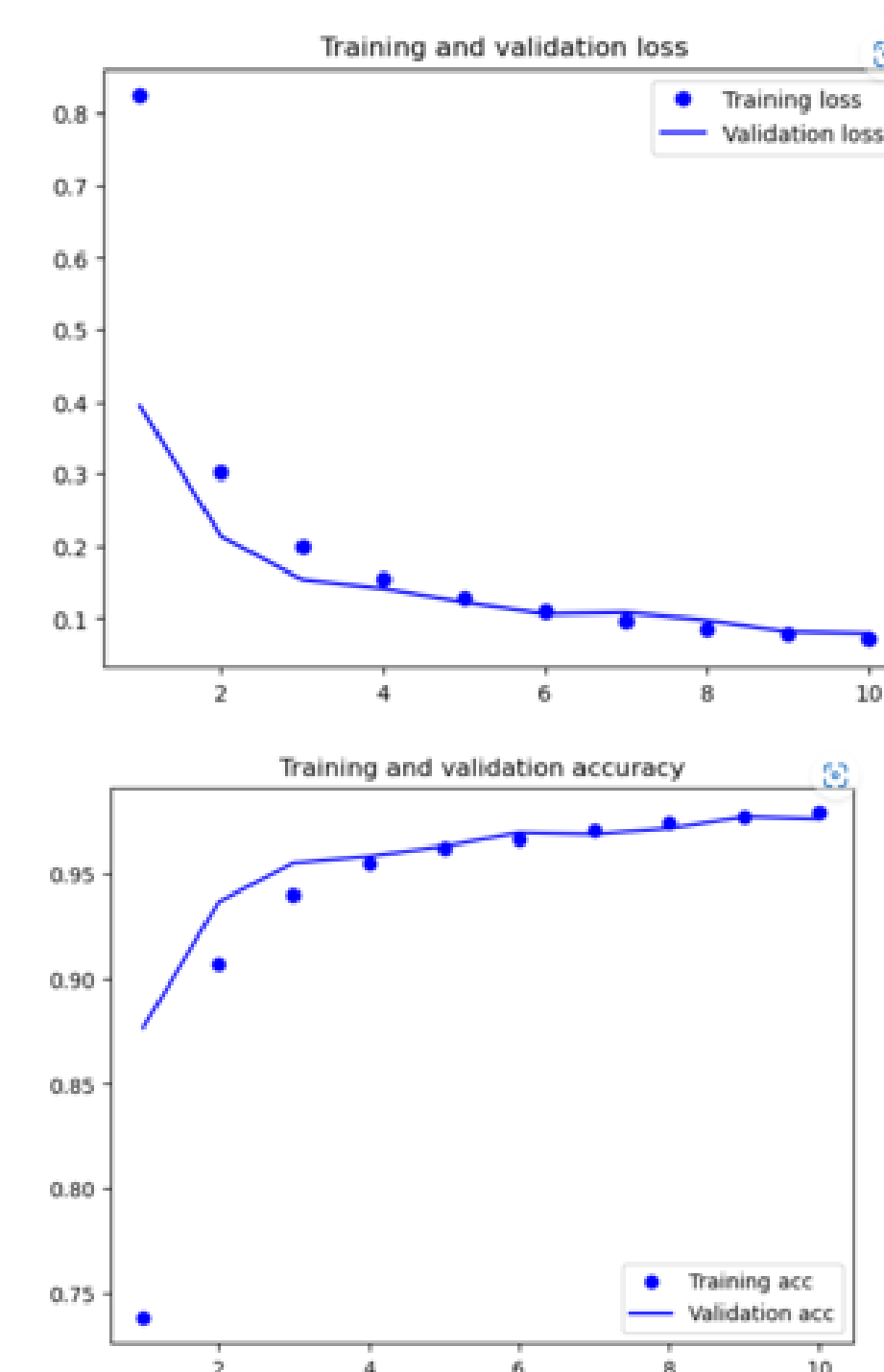
the methodology for signature forgery detection using RNN involves collecting and preprocessing data, extracting relevant features, training and validating an RNN model, and deploying the model for real-world applications.



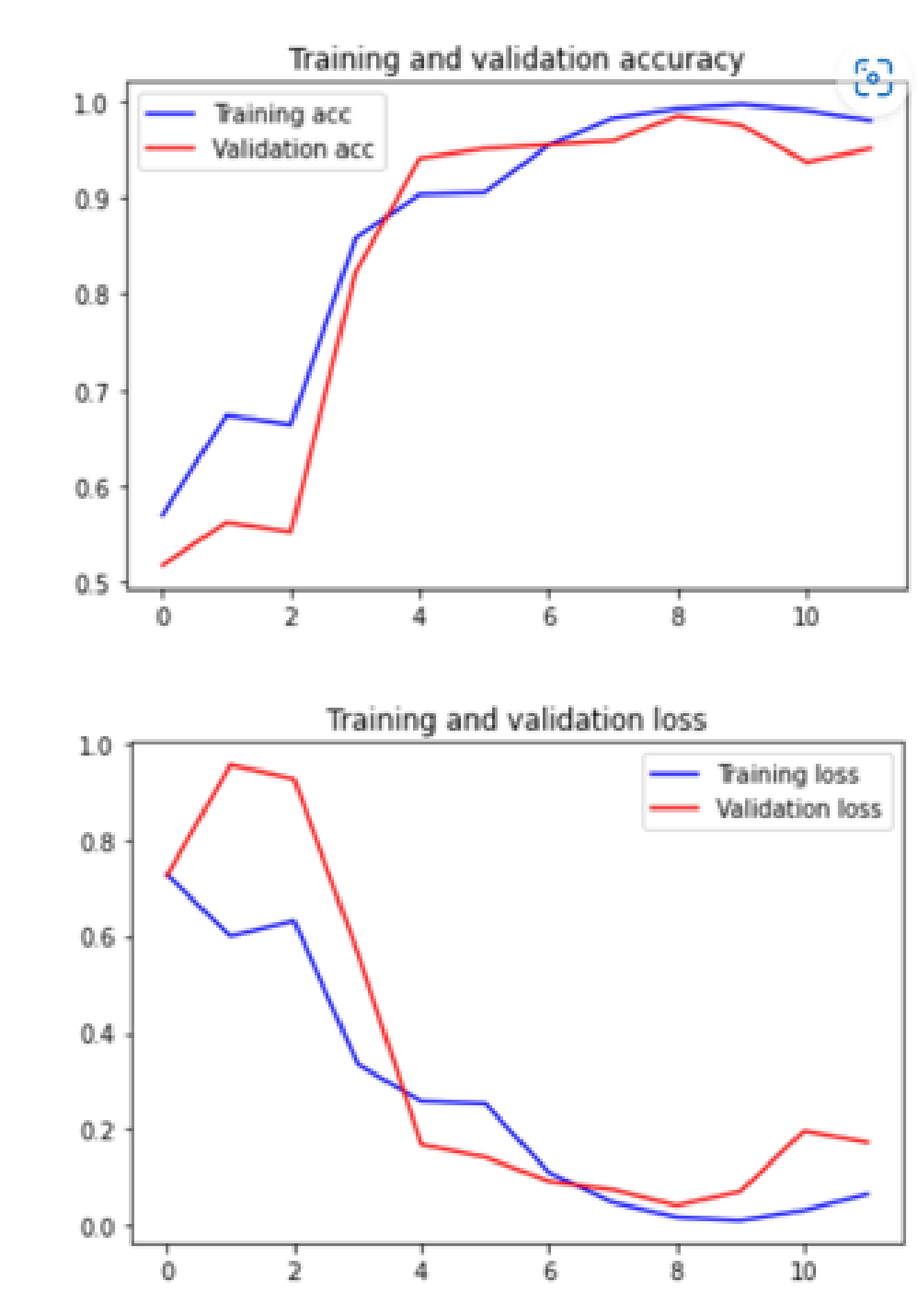
RESULTS

These results suggest that RNN-based approaches are highly effective for signature forgery detection, especially for online signatures where the sequence of pen strokes is important.

USING RNN



USING TRANSFER LEARNING



CONCLUSION

Overall, the implementation of RNNs for signature forgery detection presents a valuable tool for preventing fraudulent activities and maintaining the integrity of important documents. Future research can focus on improving the accuracy and efficiency of RNN models, as well as exploring their applications in other fields of document analysis and verification.

REFERENCES

1. <https://www.sciencedirect.com/science/article/pii/S1877050920305731>
2. https://www.academia.edu/download/68779133/IRJET_V8I6528.pdf

ACKNOWLEDGEMENT

1. <https://github.com/kinshukkushalreddy/Signature-forgery-detection-using-RNN.git>