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Role of Artificial Intelligence in Solving Missing Persons Using K-Nearest Neighbor Algorithm and Comparing with Long Short Term Memory Algorithm

INTRODUCTION

➤ Locating missing persons is a complex and time-sensitive task that often involves analyzing diverse sets of data, including demographics, last known locations, and behavioral patterns.

➤ AI algorithms can analyze Patterns, Finger Prints and it can match images of missing persons

➤ AI algorithms can analyze large datasets and extract meaningful insights to guide search efforts and prioritize areas of interest

➤ LSTM is more suitable for analyzing sequential data and capturing temporal dependencies, making it well-suited for scenarios with time-series data or dynamic behavioral patterns

➤ LSTM can be employed to analyze patterns of movement or behavior over time, enabling predictive modeling of future actions

➤ LSTM provides valuable insights into the likely trajectory of a missing person, thereby guiding search efforts more effectively.

➤ AI can analyze patterns in historical data related to missing persons cases such as geographic locations , weather conditions or behaviroal trails to predict potential areas of interest for search efforts.

➤ AI can integrate and analyze vast amounts of data from various sources including law enforcement databases
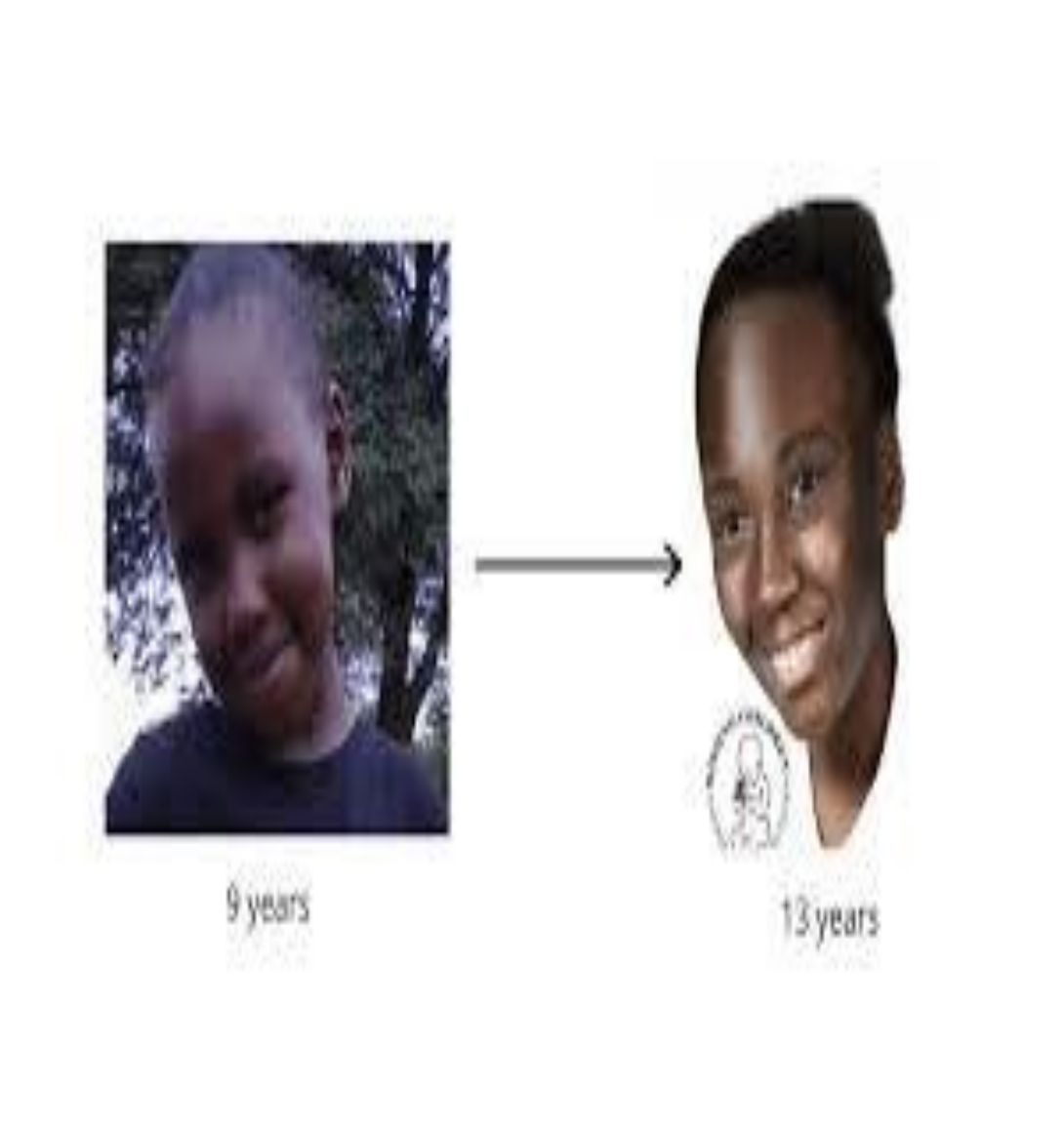
Finding Missing Persons using AI

MATERIALS AND METHODS
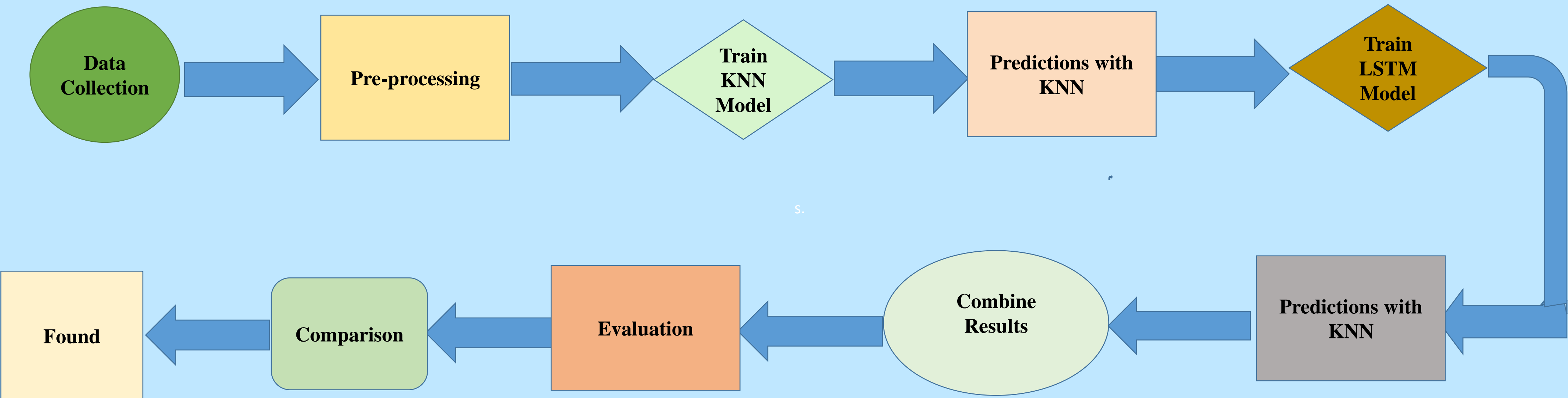
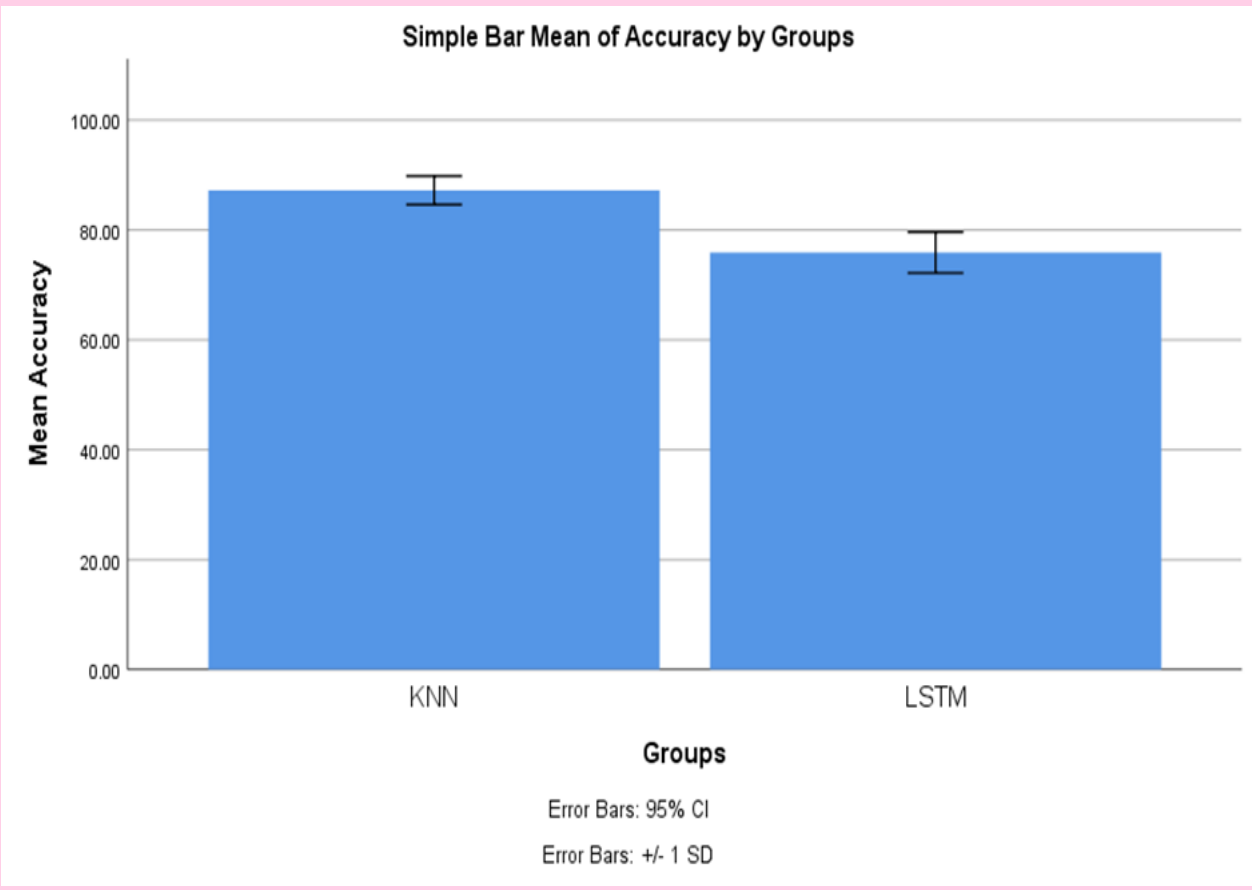**Block Diagram for finding Missing Persons using KNN And LSTM**

RESULTS

KNN Mean Accuracy

LSTM Mean Accuracy

KNN AND LSTM Mean Accuracy

DISCUSSION AND CONCLUSION

➤ The K-Nearest Neighbor algorithm is compared with the algorithm to predict the future missing persons using Ai

➤ To match surveillance camera realtime video footage with facial images of people who have gone missing

➤ By performing the experiment KNN algorithm has achieved an accuracy of 87.20% and LSTM memory has achieved an accuracy of 75.88%

➤ The significance value for this research is found to be p= 0.001 after performing the Independent samples T-test analysis

➤ The aim of the present experimentation research is to improve the accuracy of finding missing persons using AI

➤ AI algorithms can analyze large datasets and extract meaningful insights to guide search efforts and prioritize areas.

Presents the Statistical Analysis Results of the KNN Algorithm and the LSTM Algorithm

	Algorithm	N	Mean	Std.Deviation	Std.Error Mean
ACCURACY	KNN	10	87.200	2.58844	1.15758
	LSTM	10	75.882	3.72663	1.66660

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