TITLE Enhancing Iron deficiens delater Railed on ratin image by CNN and SVM.

paragraphy:

Abstract:

Iron deficiers is one of the slowed public health problem that affects children and pregnant momen. The new invarious approach such as machine leaving absorthm 15 or of the procedures and mothed used in delective clinical disposes of which aremia delection count be left out in weart times.

To determine the efficiency of Iron deformers detection Impostance: using chin compared to sure can is most represent in anomia dekotor using image classification and it is cost effective and timely werell diverted

Total number of askedes published on this topic is more paragraph 1: than 82 papers from scholar TEEE Explore. Most cited astales:

- * Kavsaoglu AR; polat k, Hasiharan Non invance prediction of homoglothin level using machine leconny, 2015 Al-almi, Bashanfer - premalence of ison deficerey aremina currors university student in Hoderda, 2014
- * pasticha 1 Tye-DIN 7800 deficiercy 2021
 - Khow, chardhury-Machine locaring Algorithm to predict the childhood aremia, 2021
- Diffry, Chrishraphiya Aremia selection in pregnary momen by using random prediction, 2019

Application * Early delection and disrossis pated screening * Decision support realth care protestionals * public health + chrical frials and klearch * Remod maritary pasagraph q! Date availability and audity: Data is collected from habital using Kabo allest app about patient Hualus rage, Gorden i disease, blood keel ourd palm image of both Aremic and non Aremic patrents are calcated. Algorithm complexity and performance, pesigning and optimizing even algorithm for iron deficiency distrion is sophisticated technarie. Ethical Consideration! Before the study began the ethical consent from various hospital comittees we taken and permittion of taking pidores of pulm of children both aremic and non aremic posicials. Feature extendion, Identifiers the most informant features and optimizing features extraction mothers to CNA and could be more complex. moterials and methods paragraph 1: study cetup: Squadha school of Cristreen by no of groups: 2 Soundo size: (0) 1 46 A D ; Total Size,

State of the state Dala St The datased for palpable palm images of Areme and non Aremic potents is tween from " mendolog data" Identificate and told a paragraph 2: pacedore: [CNN] + pefine the problem & Gather & propose dates * Split dole into taning and techny sold & Build a CNN motel 170 97-15 MAD : 1900 Work of * Compile the model This if we had been to continue of * Toan the model * Evaluate the model workload that therefore * Deploy paragraph 3: [SVM] becopies in the way was and was a second of the second of * before the problem Godfen and prepare date Split data into Training and Testing 1865 * Build SVM Model * make politicons Evaluate the model of proof where the stepped of suppressions Doples xeult puragraph 4: * Goolge Gollab MV2 A File core 13 1 convent of a contract of the core 13 8GB RAM undows operating system SPUL JBM Dote collection, Godfen the deterest that contain information about ixon deficieres defection

Model devolutionary: Implementing convolutional round notroth algorithm and madel with text features

Training and Testing: Tolking and testing considered result notrible model that evaluates its performance

Pasagrap

5.10	Agoirthm	Sumple 8120	nacracy		
1.	CWN	10			
2. SVM		10	64.70		

pavagraph - 6:

1.) Statistical software used: IBM SPSS verticon 27

ii) Independent variables: * CMN

in") Penults and Assouthon,

Table 1: It displays the improvement of accuracy of CNN

Table 2: It displays the anticipated accuracy of SWM

Table 3: provides the accuracy after sum with convoying standard over

Table 4: Companes the accuracy of SUM to that of CNN.

previous liferature.

Difficult in getting more accuracy with sum seconds Lmitadion: of May required careful tuning of hyperpropanders, can be computationally wersive.

Feature scope! CNN can be combined with SVM because other machine leasures abouthous to get improved techniques of solving probleme.

Corclass on:

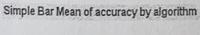
CNN algorithm is good in secognizate the polin image, dotated and its classification. which have accertace of egg. Lig y compaled to SVM of accuracy 86.70 1.

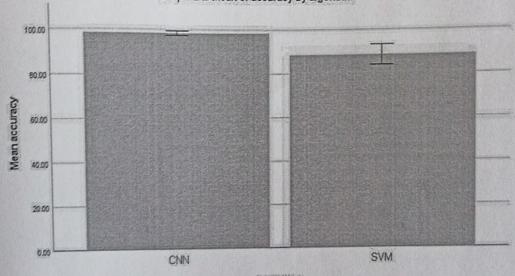
& Bhewa

	algorithm	Grou	p Statistics			
accuracy	CNN	N	Mean	Std. Deviation	Std. Error Mean	
	SVM	10	98,4960	1.56927	.49625	
	OVIII	10	88.7040	7.37850	2.33329	

Independent Samples Test

		Levene's Test for Equality of Variances			t-test for Equality of Means					
		F	Sig.	t	df	Sig. (2- tailed)	Mean Difference	Std. Error Difference	Interva	onfidence al of the rence Upper
accuracy	Equal variances assumed	27.344	.000	4.105	18	.001	9.79200	2.38547	4.78031	14.80369
	Equal variances not assumed			4.105	9.813	.002	9.79200	2.38547	4.46304	15.12096





algorithm

Error Bars: 95% CI Error Bars: 4/- 2 SE