

HCL HACKATHON MADURAI
ANSWERSHEET EVALUATOR –USING AI & ML
TEAM HACKNONYMOUS

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ABSTRACT

According to the HRD ministry, India has 6,214 engineering and technology institutions which are enrolling 2.9 million students. Around 1.5 million engineers are released into the job market every year. But the dismal state of higher education in India ensures that they simply do not have adequate skills to be employed. This is mainly due to lack of knowledge and practical skills of candidates. Nowadays there is a huge scam in evaluating answer sheets in top universities. By using machine learning concepts, data sets of answer key is feed to machine which intelligently validates answer sheets. So that human error can be rectified and also huge scam in re-evaluation process will be resolved. Initially our application scans the answer sheet and then store it as image format and then text extraction from scanned image is done by using extraction libraries. Our model containing datasets efficiently evaluates the extracted text and award appropriate marks. Thus there is a need of character recognition mechanisms to perform Document Image Analysis (DIA) and Natural language processing (NLP) which transforms documents in paper format to electronic format and evaluate this answers with datasets(key answers) and also provide appropriate marks for related answers using machine learning with some prediction algorithms .

PROBLEM STATEMENT

Evaluation of answer sheets is one of the important process in any schools or institutions. Subject experts will play a major role in mark evaluation. It requires large amount of man power and time consumption. We should also consider that there is a possibility of human error during evaluation process which affect student efforts. In Tamil Nadu, answer sheets evaluation process is done mostly with the use of answer key which contains some key answers .This could affect the practical knowledge of the student or it can also spoil their creativity in answer presentation. Rarely, in some Institutions evaluators works for their Self benefits.

Recently re-evaluation Scam Busted at Tamil Nadu's Anna University.

Referencelink:<https://www.indiatoday.in/education-today/featurephilia/story/engineering-employment-problems-329022-2016-07-13>

OBJECTIVES

Our motto is to develop an AI application to evaluate answer sheet reliably and to award appropriate marks for exact and relevant answers. Our application can reduce human errors and also scam behind re- evaluation process can be resolved. It can also saves time, man power and cost. Therefore our application acts like a virtual teacher to evaluate every candidates answer sheets efficiently hence producing qualified engineers/candidates.

TECHNOLOGY STACK;

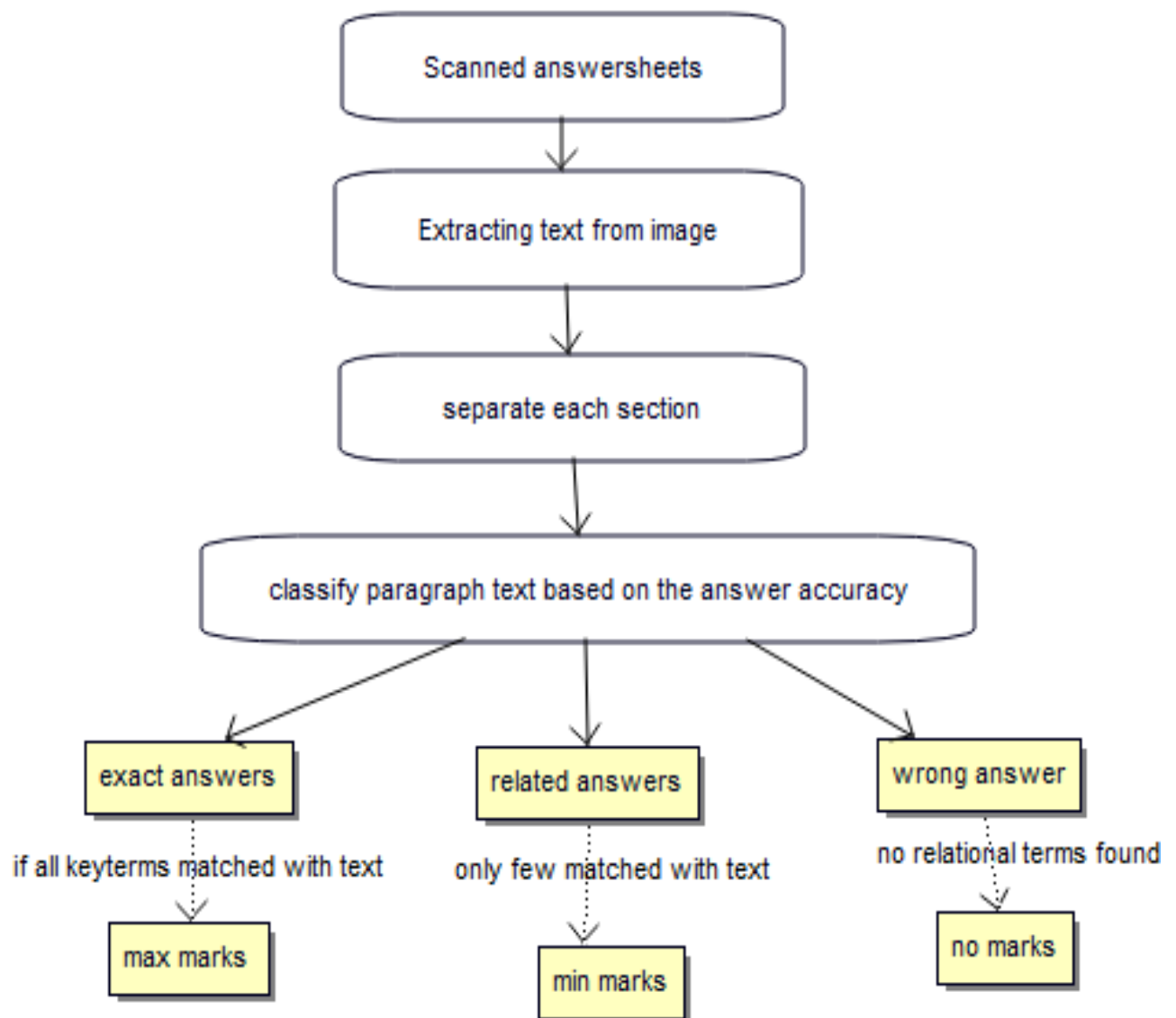
TO EXTRACT TEXT FROM SCANNED IMAGE:

- pytesseract
- OpenCV-python
- Pillow

FOR TRAINING AND EVALUATION

- Tensor flow
- Parser
- NLP (Natural language processing) with Parsing and distance comparison.

FLOW DIAGRAM



CONCLUSION

- Our application can intelligently evaluates the answer sheet with finite accuracy. Hence it can make students efforts worthy and help them to attain their appropriate marks.
- Students can also use our application to check whether they got their appropriate marks or not.

THANK YOU

