

# Recognition of Handwritten Digits and Characters Using Machine Learning

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**Abstract:** *Handwritten Digits and Characters is that the capability of a device to admit and take written response from various causes like paper forms, images bit show system and so forth Recognition of handwritten digits and chars is an arising space of exploration and finds expansive operations in banks, services and diligence/industries. The most aim is to style knowledgeable system for "OCR(English) victimisation Neural Network". Which will effectively fete a specific character of kind format using the machine learning approach. Machine learning is relatively new field, and style factors are. Therefore less well mere than those of alternative infrastructure. Machine learning system apply data community. System are operated in way which is fully separate from the operation of normal computers. System are trained so that given a positive staring state(data input); they whichever categorize the input data into one of the number of modules or the pure information to develop in such a way that a assured helpful property is increased. Handwritten Digits and Character an idea of recognize digits which is used for computers. Object detection technique is employed for detective work the digits and characters in West Germanic language i.e. digits from 0-9 and characters from(A-Z)(a-z) Capital letters and tiny Letters. Object detection is performed by Cascade classifier. Cascade classifier class to detect object in a video stream.*

**Keywords:** Machine Learning, Image Processing, Classification, TensorFlow, Cascade Classifier

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