Deep Learning based CAPTCHA Solver for Vulnerability Assessment

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Abstract: *Captcha or Completely Automated Public Turing test to tell Computers and Humans Apart. Almost every website now has process of checking whether the website is being crawled by some sort of automated bots or not. Earlier there was too much attacks on the website using bots which used to cause a lot of harm to the big companies through Denial-of-Service attacks. CAPTCHA helped websites a lot in preventing the attacks via bots but now the world is much more advanced and with some lines of codes attackers can break distinct types of captchas and that is what this project is. This project proves the point that now captchas are just a matter of hindrance that decreases the human experience with the various websites as even sometimes they cannot enter the captcha that a bot can easily break and waste the valuable time of human. This project "Deep Learning based CAPTCHA solver for Vulnerability Assessment" proves this point by breaking the various sorts of captchas like numerical, alphanumerical, circle captcha, captcha v2 etc. with noise like line, dots, etc. The above stated points are proved by getting fairly good accuracies. LSTM based Convolutional neural network is used for this purpose; some captchas were easy to break with only a few layers while some took pretty big networks..*

Keywords: Captcha

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