

Project Proposal for Deep Neural Network

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Developing a deeper and more comprehensive communication among countries requires a good understanding of different languages. Finding an effective approach to communicate allows us to build a better society since the knowledge and information can be exchanged more efficiently. Besides, one of the main uses of technology is eliminating the language barrier for illiterates and the disabled. However, achieving these tasks can be difficult, since the language learning (native language or second even third language) requires prerequisites such as receiving education. To address these challenges, we plan to build a practical system to provide possible solutions to facilitate the language understanding process. The system will first extract information from images, transfer it to texts and then translate the text in the source language into the target language. This process will need two models. The first model will be a CNN model, focusing on computer vision, extracting text information in the image. The second model will be a RNN model, focusing on machine translation or other NLP applications, which concentrates on the applications of the extracted information from the images. The two models may also need attention or self-attention mechanisms.