

OPHTHALMIC DISEASE DIAGNOSIS BASED ON CONVOLUTIONAL NEURAL NETWORK

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ABSTRACT

Recently, old people with ophthalmic diseases have been increased in Korea. Diabetic retinopathy(DR), aged macular degeneration(AMD), and glaucoma are major ophthalmic diseases, which can lead to the vision damage. The old people need regular checkup for these diseases with a fundus camera for eyes. However, it is difficult to be inspected in advance and regularly, due to the limited medical environment including the number of doctors and tertiary-care hospitals. Here, an Artificial Intelligence (A.I.) is developed through the research project. Early detection and diagnosis are available by employing the A.I. for ophthalmic diseases using the image data of fundi of eyes. Moreover, the diagnosis results obtained from the A.I. model will help both non-ophthalmic doctors and ophthalmic doctors to give suitable suggestions to patients. Finally, it can be useful for the regular checkup and early diagnosis of ophthalmic diseases. In this talk, we will introduce the developed A.I. model and the training process to identify the main three ophthalmic diseases from the image data.

REFERENCES

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