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The automatization of the medical diagnosis on the basis of an X-ray images of a patient with the restrictions of both possible errors on the desired levels

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The article proposes algorithms for the automatic diagnosis of the facts of human lung diseases with pneumonia and cancer based on images obtained by radiation irradiation, which allow making decisions with the necessary reliability, that is, by limiting the probabilities of making possible errors to a pre-planned level. The proposed algorithms have been tested using statistical simulation and real data, which fully confirmed the correctness of theoretical reasoning and the ability to make decisions with the required reliability using artificial intelligence.

Summary

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