## Detection of Pelvic Inflammatory Disease Using CNN Segmentation Algorithm

2

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## ABSTRACT

(PID) pelvic inflammatory disease is an infection of the female genital tract. This most frequently happens when physically communicated microorganisms spread from the vagina to the uterus, fallopian cylinders, or ovaries. The uterus can also be affected by microorganisms or different organisms that enter through the cervix and spread vertically. Untreated, scar tissue and infected pockets of fluid (abscesses) can form in the reproductive tract, which can cause long-lasting harm. Signs and symptoms of pelvic inflammatory disease can be mild or mild. Some women experience no signs or symptoms. Therefore, you may not notice it until you have trouble conceiving or have chronic pelvic pain. This study aims to investigate a suitable deep-learning segmentation method for ultrasound images. Compare the results of the FCN network combined with the Deep-learning network in the convolutional neural network [CNN], and then find that the Deep-learning network has obvious advantages as a segmentation model for pelvic inflammatory disease image. In clinical practice, it can reduce the workload of doctors and try to segment the ultrasound image of pelvic inflammatory disease, filling the gap in this field.

Keywords: Ultrasound images, Convolutional neural network [CNN], FCN network



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