Deep learning for prediction of colorectal cancer outcome
https://www.thelancet.com/journals/lansei/article/PIIS0140-6736(19)32998-8
Feb 01, 2020 - Deep learning can be used to develop biomarkers for automatic prediction of patient outcomes directly from conventional histopathology images. In colorectal cancer, the marker was found to be a clinically useful prognostic marker in the analysis of a large series of patients who received consistent, modern cancer treatment.
Cited by: 71  Author: Ole-Johan Skrede, Ole-Johan Skrede, Sr...
Publish Year: 2020

Application of Deep Learning for Early Screening of ...  
https://www.hindawi.com/journals/cmnmv/2020/8374317 -  
Aug 25, 2020 - Colorectal cancer (CRC) is a common gastrointestinal tumour with high morbidity and mortality. Endoscopic examination is an effective method for early detection of digestive system tumours. However, due to various reasons, missed diagnoses and misdiagnoses are common occurrences. Our goal is to use deep learning methods to establish colorectal lesion detection, positioning, and classification models based...
Cited by: 2  Author: Junbo Gao, Yuanhao Guo, Yinghua Sun, ...
Publish Year: 2020

Medical image analysis based on deep learning approach
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8023554
History of neural networks. The study of artificial neural networks and deep learning derives from the ability to create a computer system that simulates the human brain. A neurophysiologist, Warren McCulloch, and a mathematician Walter Pitts developed a primitive neural network based on what has been known as a biological structure in the early 1940s.
Author: Murakrishna Puttagunta, S. Ravi  Publish Year: 2021

PDF Deep Learning Techniques for the Classification of ...  
14 hours ago - Finally, we compared our well-trained deep learning methods on two different histological image open datasets, which comprised 5080 H&E images of colorectal cancer. The other dataset was composed of nine organizational categories of 100,000 images with an external validation of 7180 images.
Artificial intelligence in gastrointestinal endoscopy for ...
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8202249
Jun 10, 2021 - In another study, during surveillance colonoscopy, two flat lesions with low-grade dysplasia were clearly highlighted by EndoBRAIN-EYE (Cybernet Systems, Tokyo, Japan), an AI-based polyp detection system successfully adopted in previous trials to identify colorectal lesions in non-IBD patients. 33 Pending future software implementation supported by studies in IBD cohorts, this single experience suggests that this AI-based polyp detection...

(PDF) Overview of Deep Learning in Gastrointestinal Endoscopy
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Artificial Intelligence for Gastric Cancer Detection by ...
https://www.rspvisions.com/ai-for-gastric-cancer-detection
However, a lack of endoscopists with colonoscopy skills has been identified and solutions are critically needed. The development of a real-time robust detection system for colorectal neoplasms is needed to significantly reduce the risk of missed lesions during colonoscopy. Artificial intelligence platforms using deep learning algorithms have made remarkable progress in general medical imaging but their clinical use in cases of upper gastrointestinal ...
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Real-time artificial intelligence for detection of upper ...
Name of Journal: World Journal of Clinical Cases
Manuscript NO: 08624
Manuscript Type: MINIREVIEWS

Deep learning-driven colorectal lesion detection in gastrointestinal endoscopic and pathological imaging

Cai YW et al. AI for colorectal lesion

Yu-Wen Cai, Fang-Fan Dang, Yu-Hong Niu, Li-Yuan Lu, Chen Chen, Ping Lin, Yu-Shan Xue, Jian-Hua Chen, Su-Yu Chen, Xiong-Bao Luo

Abstract
Colorectal cancer has the second highest incidence of malignant tumors and is the fourth leading cause of cancer deaths in China. Early diagnosis and treatment for...
Deep learning driven colorectal lesion detection in gastrointestinal...

Overview of Deep Learning in Gastrointestinal Endoscopy
https://www.researchgate.net/publication/330323140...
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multilayer perceptrons designed to use minimal preprocessing, was recently reported as
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Deep Learning for Gastric Pathology Detection in ...
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Jun 01, 2019 - Deep Learning for Gastric Pathology Detection in Endoscopic Images
... at specific lesions. GI endoscopy is therefore predicated on the assumption that the
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Real-time artificial intelligence for detection of upper ...
https://www.thelancet.com/journals/lancet/article/...
Oct 04, 2019 - We developed and validated the Gastrointestinal Artificial Intelligence Diagnosis System
(GRAIDS), a deep learning semantic segmentation model capable of providing real-time automated
detection of upper gastrointestinal cancers, from suspicious lesions during endoscopic examinations
based on 1,036,496 endoscopy images from 84,424 individuals ...

The potential of deep learning for gastrointestinal ...
Jan 01, 2021 - These promising results suggest that deep learning in the realm of capsule endoscopy
will have clinically relevant outcomes for patient care. 12.3. Applications of artificial intelligence in upper
endoscopy 12.3.1. Introduction. Upper GI endoscopy is a common tool used for diagnostic, screening,
and surveillance purposes for a variety of pathology.
Author: Robin Zachariah, Christopher Romboa...
Publish Year: 2021

Survey of Computer Vision and Machine Learning in ...
https://deepai.org/publication/survey-of-computer...
Apr 26, 2019 - This paper attempts to provide the reader a place to begin studying the application of