
FORTH - ARCHERS (NIARCHOS) Conference

ARCHERS FINAL (VIRTUAL) CONFERENCE

DECEMBER 6-8, 2021

Artificial intelligence & medicine: Towards a deeply intertwined relation

Eleftherios Trivizakis

Abstract

Over the past decade, deep learning has revolutionized image analysis in a relatively short period of time. Inspired by the biological structure of the human brain and vision, this technology is capable of learning complicated and hidden underlying patterns to properly discriminate data in challenging tasks. In medicine, artificial intelligence has the potential to greatly enhance the decision-making framework for assessing innovative targeted therapies. In this presentation, several medical applications of deep learning will be discussed, including stress evaluation using electrocardiographic data, malignancy levels of nuclei in fluorescence microscopy images and deep radiotranscriptomics for assessing genetic alterations in non-small cell lung cancer tumors.