

# **IEEE/ACM Transactions on Computational Biology and Bioinformatics (IF=2.428)**

## **Call for Papers**

### **Special Issue: Machine Learning for AI-Enhanced Healthcare and Medical Services: New Development and Promising Solution**

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#### **Publications News**

Healthcare and medical services are always among the top concerns for humans in the modern society. Recently, people start to realize that computer technologies, especially artificial intelligence (AI), can enhance their healthcare services and medical diagnoses. In fact, nowadays, machine learning technologies, as one of the most important computer technologies, have been widely applied to the fields of healthcare engineering, medical research, cancer diagnosis and etc. Based on existing historical data, machine learning technologies, such as back-propagation/ feed-forward neural networks, deep learning and support vector machine, are able to identify possible diseases, make immediate decision for medical treatment and provide precious advices for better life-style. Over the past few years, scientists work hard to identify the internal relationships between gene microarrays, cells, tissues, organisms, diseases, etc., and apply the machine learning technologies to solve real-world problems. Although significant progresses have been made via machine learning technologies for medical research, there remain gaps between the computer theories and real-world application requirements. Moreover, there are still areas in healthcare and medical research that machine learning technologies can hardly fit in. Therefore, exploring the possibility of using machine learning technology in the fields of healthcare and medical research is always demanded.

This special issue intends to provide an international forum for researchers to show-case the up-to-date results on machine learning technologies in the fields of healthcare and medical services. We invite submissions of high-quality papers on original research, which have not been published previously.

#### **Topics of interest include, but are not limited to:**

- AI enhanced clinical decision making;
- Biomechanics, modeling and computing;
- AI based computer vision topics on medical images;
- Big data research and project experience in bio-medical and healthcare services;
- Knowledge-based or agent-based models for biological systems;
- Distributed systems in medical and healthcare services;
- Intelligent devices and instruments for medical and healthcare services;
- Machine learning in medicine, human biology, and healthcare;
- Intelligent and process-aware information systems in human biology, healthcare and medicine;
- AI and data science for human biology, medical and healthcare services;
- AI in medical and healthcare education.

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## **Important Dates:**

- Manuscript Submission Deadline: Jan 31, 2019 (**EXTENDED**)
- First Notification: Feb 28th, 2019
- Revised Manuscript: March 31st, 2019
- Notification of Acceptance: May 31st, 2019
- Publication Date: Late 2019, subject to journal publication schedules

Manuscript Submission:

Manuscripts are to be submitted using the IEEE online manuscript system:

<https://mc.manuscriptcentral.com/tcbb-cs> and selecting the special issue name “MLHealth-2018”.

Papers must not have appeared elsewhere, and must not be in review elsewhere. All papers will be reviewed in accordance with the procedures of the IEEE Transactions.