The Potential Capability of Deep Learning in Cardiac Arrhythmia Classification

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I. Abstract Body (up to 250 words)

Cardiac arrhythmia symptoms are detected by ECG devices with at least 8 leads. Due to the large amount of data, arrhythmia classification with high precision is usually performed by cardiologists with considerable time consumption. Automatic arrhythmia classifiers based on an artificial intelligence algorithm can help cardiologists to obtain better precision and reduce time-consumption. In this presentation, we compare optimization methods, machine learning methods, and deep learning methods in cardiac arrhythmia classification. A high-performance classifier based on a deep learning algorithm is a viable direction of the future research.

II. Image:



Figure 1. Classification Capability Map

III. Reference: (work related references)

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IV. Biography:

Siteng Chen is currently a Ph.D. candidate in the Department of Electrical and Computer Engineering and a Research Assistant in the Department of Disability and Psychoeducational Studies at the University of Arizona. His experiences include machine

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