About this course

Deep Learning Methods for Healthcare

Instructor

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Course Description

Welcome to *Deep Learning Methods for Healthcare,* which is the second part of the 3 part series on *Deep Learning for Healthcare*. This course covers deep learning (DL) methods, healthcare data, and applications using DL methods. The courses include activities such as video lectures on different DL and health applications topics, self-guided programming labs, and homework assignments. You will build up your knowledge and experience in developing practical deep learning models on healthcare data.

Course Objectives

You are expected to learn **various deep learning models for healthcare applications** including

- Embedding methods such as word2vec, med2vec, and MIME and their applications to electronic health records (EHR),
- Convolutional neural networks (CNN) and their applications to medical imaging and continuous monitoring data,
- Recurrent neural networks (RNN) and their applications to sequential clinical event prediction, treatment recommendation, and patient data de-identification,
- Autoencoder unsupervised neural networks including sparse autoencoders, stacked autoencoders and denoising autoencoders

You will also get a chance to learn different **healthcare applications** using DL methods such as clinical predictive models, computational phenotyping, patient risk stratification, treatment recommendation, clinical natural language processing, and medical imaging analysis. Besides learning DL algorithms,