



## ≡ Item Navigation

# About this course

## Health data science foundation

### Instructor

Jimeng Sun

### Course Description

Welcome to *Health data science foundation*, which is the first part of the 3 part series on *Deep Learning for Healthcare*. This entire series covers deep learning (DL) methods, healthcare data and applications using DL methods. The entire series includes 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

In this course, you are expected to learn

- **health data and applications** such as structured and unstructured health data and health data standards,
- **machine learning methods** such as supervised and unsupervised learning and machine learning evaluation metrics,
- **deep neural network** including single and multi-layered neural networks.

In this entire series, 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, the course will focus on **hands-on experiences** for data scientists and machine learning engineers to implement various practical healthcare models on diverse medical data. You will learn popular deep learning frameworks like pytorch, and data science software like jupyter notebook.