AIST1001: Introduction to AI for non-CS students

Objectives:

1. Understand the basic concepts of artificial intelligence and its application in other disciplines

---Data preprocessing, clustering, classification, dimensionality reduction, data visualization, application examples in top papers

2. Understand the applicable scenarios and limitations of artificial intelligence algorithms in other disciplines

---Evaluation of algorithm, underfitting, overfitting, data dependence, factors affecting algorithm performance, etc.

3. Practice some entry-level artificial intelligence algorithms

Hierarchical clustering, K-nearest neighbor algorithm, logistic regression, PCA, t-SNE, deep neural network, etc.

4. Use artificial intelligence algorithms to try to solve computational problems in respective disciplines

Disease diagnosis, drug discovery, article generation, and computational problems in respective disciplines

Schedule:

1. Course introduction

2. Data

3. Clustering

4. Classification

5. Model evaluation

6. Dimension reduction and data visualization

7. Introduction to deep learning

8. AI to resolve computational problems in other disciplines