Revision

CSC4007, 2019

Exam Question: Structure

- **Each question**: consists of three styles

  - Style 1: Information checking

    - e.g. what is the difference between classification vs. clustering
    - e.g. formally describe the Boosting algorithm

  - Style 2: Applying the knowledge on real data

    - e.g. here is a dataset, find the optimum parameters of a linear regression algorithm
    - e.g. here is a dataset, do one epoch of a multi-layer perceptron forward propagation

  - Style 3: Insight understanding

    - e.g. explain why the results after doing k-means clustering with two different k are different.

Main Exam Topics

- Linear regression: **No style 2**

- Classification: **no optimization part** (gradient descent to find the optimum logistic regression model)

- Support vector machine: **No style 2**

- Unsupervised learning: **No generative model learning, no dimensionality reduction**

- Enssemble methods: **No style 2**

- Neural networks: **No deep learning part**

NOTE: **No** questions asking for solution/algorithm **derivations**