

Advanced Machine Learning

Qing-Yuan Jiang

The school of Computer Science and Engineering, NJUST

2026.09.17

Preliminary

Basic Information:

- Instructor: Qing-Yuan Jiang
- Email: jiangqy@njust.edu.cn
- Address: Room 4069, Dingxin Building
- Homepage: <https://jiangqy.github.io/>

Course Information:

- Course Page: <https://jiangqy.github.io/course/>
- Location: Room III-514
- Teaching Assistant: Peng Cheng
- Email: pengc@njust.edu.cn



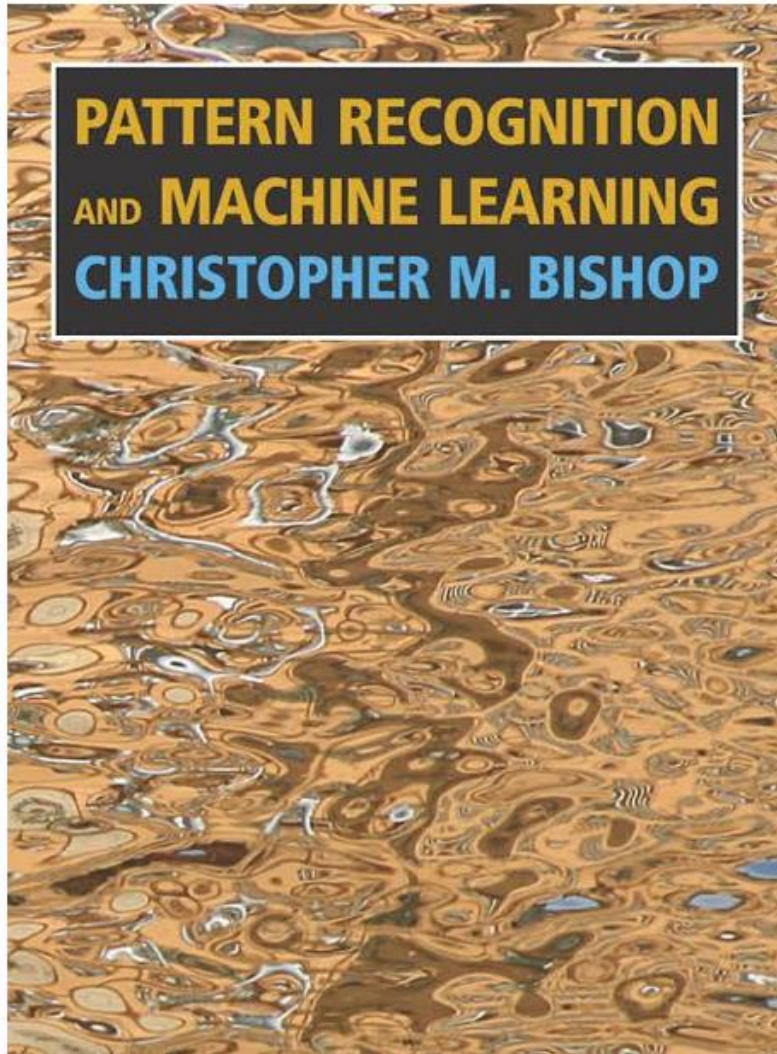
AML1班-2026秋季

群号: 1108860075



Text Books

- Pattern Recognition and Machine Learning, Bishop, C.M. & Nasrabadi, N.M.
- Machine Learning, Zhou ZH.



Course Assessment

Class Behavior: (20%)

- Attendance
- Question/Answer

Topic Report: (80%)

- Each student selects two candidate topics, one of which will be determined as final topic
- Study the selected topic independently
- Choose one presentation format:
 - English PPT Presentation: 20 minutes; students sign up
 - Chinese PPT Presentation: 20 minutes; students sign up
 - Video Presentation: 20 minutes; selected by the instructor and played in class

Topics

- Graph Neural Networks
- Variational Autoencoder
- Diffusion Model
- Self-Supervised Learning
- Online Learning
- Adversarial Learning
- Transfer Learning
- Contrastive Learning
- Retrieval-Augmented Generation

The presentation should introduce the selected topic from the perspectives of **its application scenarios, underlying principles, modeling, optimization.**

Important Dates

- Select a topic and decide on the presentation format: 2026.09.24
- Presentation: 2026.10.8-2026.10.30

Thanks