

COMP9501 - Machine Learning

Semester 2, 2020-21

| <p>This is a <b>Graduate Course</b>. MPhil/PhD students in the Department of Computer Science should read the Coursework Requirement.</p> |  |                 |                   |                 |              |               |        |        |        |        |  |
|---|--|-----------------|-------------------|-----------------|--------------|---------------|--------|--------|--------|--------|--|
| Instructor  | Dr. J. Pan   |                 |                   |                 |              |               |        |        |        |        |  |
| Syllabus  | <p>This course introduces (1) the basic concepts of machine learning and core machine learning models and methods, including supervised learning, non-supervised learning, classification, and regression; (2) the machine learning pipeline including data gathering, preprocessing, visualization; selecting machine learning models and tuning hyper-parameters; training, validation, and testing; (3) case studies of machine learning applications including handling large datasets. The course consists of several assignments as well as a final project that lets students apply machine learning to their individual/group research projects.</p> |                 |                   |                 |              |               |        |        |        |        |  |
| Topics  | •  |                 |                   |                 |              |               |        |        |        |        |  |
| Pre-requisites  |  |                 |                   |                 |              |               |        |        |        |        |  |
| Compatibility   |  |                 |                   |                 |              |               |        |        |        |        |  |
| Instructor's web  |  |                 |                   |                 |              |               |        |        |        |        |  |
| Assessment  | <ul style="list-style-type: none"> <li>• In-course assessment:</li> <li>• Examination marks:</li> </ul>  |                 |                   |                 |              |               |        |        |        |        |  |
| Timetable   | <p>Teaching Period: January 18, 2021 – April 30, 2021<br/>                 Reading Week: March 8, 2021 - March 13, 2021</p> <table border="1"> <thead> <tr> <th><i>Date</i></th> <th><i>Start Time</i></th> <th><i>End Time</i></th> <th><i>Venue</i></th> <th><i>Remark</i></th> </tr> </thead> <tbody> <tr> <td>Monday</td> <td>2:30pm</td> <td>5:20pm</td> <td>online</td> <td></td> </tr> </tbody> </table>  | <i>Date</i>     | <i>Start Time</i> | <i>End Time</i> | <i>Venue</i> | <i>Remark</i> | Monday | 2:30pm | 5:20pm | online |  |
| <i>Date</i>   | <i>Start Time</i>  | <i>End Time</i> | <i>Venue</i>      | <i>Remark</i>   |              |               |        |        |        |        |  |
| Monday  | 2:30pm   | 5:20pm          | online            |                 |              |               |        |        |        |        |  |
| Discussion board  | <p>Newsgroup: <a href="news://news.cs.hku.hk/hku.cs.comp8101">news://news.cs.hku.hk/hku.cs.comp8101</a></p>  |                 |                   |                 |              |               |        |        |        |        |  |