

00137130/00101755: Deep Learning: Algorithms and Applications  
Final Project Instructions

1. Each team should consist of two to four members.
2. The project should contribute to at least one of the following aspects of deep learning: (a) theoretical understanding of existing methods; (b) new architectures or algorithms; (c) application to a new problem or dataset. Examples of topics:
  - (a) Some theoretical properties of Wasserstein GANs;
  - (b) A deep ensemble Kalman filter for data assimilation;
  - (c) COVID-19 predictions with deep learning.
3. Each team will need to submit a proposal of 1–2 pages by Tuesday, May 12. The proposal should briefly describe the proposed study, review related work, and justify its relevance and novelty. Be sure to include a complete list of references at the end of your proposal.
4. Each team will need to give a 6-minute presentation on Tuesday, June 2, or Thursday, June 4, during the usual class time. The time limit is strict and there is no question and answer session.
5. The final written report is due on Tuesday, June 9. It is recommended that you prepare your report using  $\text{\LaTeX}$  with the NeurIPS style file (<https://neurips.cc/Conferences/2020/PaperInformation/StyleFiles>), but this is not mandatory. There is no length requirement for the report, but a typical conference paper length (8–9 pages formatted in the above manner) would be sufficient. Be sure to include an “Author Contributions” section summarizing each member’s contribution to the project. Submit only a PDF file of your report, along with code and data (if not publicly available).