



Aalto University
School of Science

CS-E4890 Deep Learning – Mini-project instructions

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Introduction to mini-project task

- ❑ The key idea of the mini-project is to allow you to use the theoretical knowledge you have gained during the course in real life practical machine learning challenges.
- ❑ Additionally, you are expected to report your work in a similar manner as you do in a typical scientific publication (obviously with a considerable smaller scope).
- ❑ Together with your group, you are expected to innovate a suitable challenge, consider what type of deep learning model would be suitable, make the implementation and report your findings.

Introduction to mini-project task

- ❑ We will offer you pointers to various dataset sources that can be used in your project. You are not limited to any particular data, challenge type, deep learning library, deep neural network structure or computational environment.
- ❑ We would like to, however, encourage you not to take a challenge that is too complicated. Getting a deep neural network to work properly and understanding the phenomena behind the results can be sometimes tricky, and can easily take much time. The time allocation for the mini-project is 30 hours per student.

Selecting the topic

- ☐ The topic your group selects should be such that it is interesting and challenging, but not too challenging so that you can accomplish it all (literature survey, code writing, debugging, experimenting, reporting) in 30 hours per student.
- ☐ It is advisable to select a topic and research problem for which there exist a well-defined evaluation scheme and reference results you can compare against.
- ☐ Notice: If you already have done or are currently doing a similar project in another course, it is not acceptable to report the same project in this course!

Web resources for the mini project

- ❑ There are good resources in the web where you can find problems and datasets for your deep learning research. We will provide some ideas and links in myCourses pages.

Reporting the results

- ❑ It is expected that you write a 6--8 report where you describe your project.
- ❑ The format of the report should follow regular academic conference or journal publication style. Please have a look at further instructions in report-template.pdf.
- ❑ Use of LaTeX is recommended and you can make use of the template in report-template.tex, but all typesetting softwares are allowed as long as you can create and submit a PDF output from it.
- ❑ **Notice! The reports will be evaluated using the Turnitin plagiarism prevention tool to ensure that the reports are genuine work written for this course.**

Schedule

- ❑ Monday 20.11.2017 mini project instructions published in the lecture
- ❑ Tuesday 5.12.2017 deadline for submitting project proposals in MyCourses
- ❑ Wednesday 31.1.2018 deadline for submitting project reports