**(1)** **Find a research article applying machine learning on the topic of your choice**
(from public databases, journals, etc.)

Examples of public databases:

- ArXiv for physics, maths, computer science, finance/economy,
- BioRxiv for biology, neuroscience, ecology,
- ChemRxiv for chemistry.

Example of journals: Nature, Science, whatever you want.

An example of article: Chemistry Nobel prize Alphafold.

**(2)** **Write a Machine Learning analysis of the paper**          **N.B: Analysis ≠ summary**
(maximum 3 pages)

1. Give context: what is the scientific question tackled, why is ML useful here,
2. Expose the problem (from an ML point of view): supervised/unsupervised framework, what data are used, how much, etc.
3. Present the model that is used to solve the problem and the optimisation process,
4. At each stage (or at the end) **discuss alternatives**: other models, other data, other problem formulation -- and **question the process**: do you see signs of overfitting, is the model well-adapted in your opinion?

**(3)** **Send me your work by email (tony.bonnaire@ens.fr). The document should mention your name and a link to the article you chose. DUE BY NOV. 17th**