Bioinformatics LAB 6

ML basics

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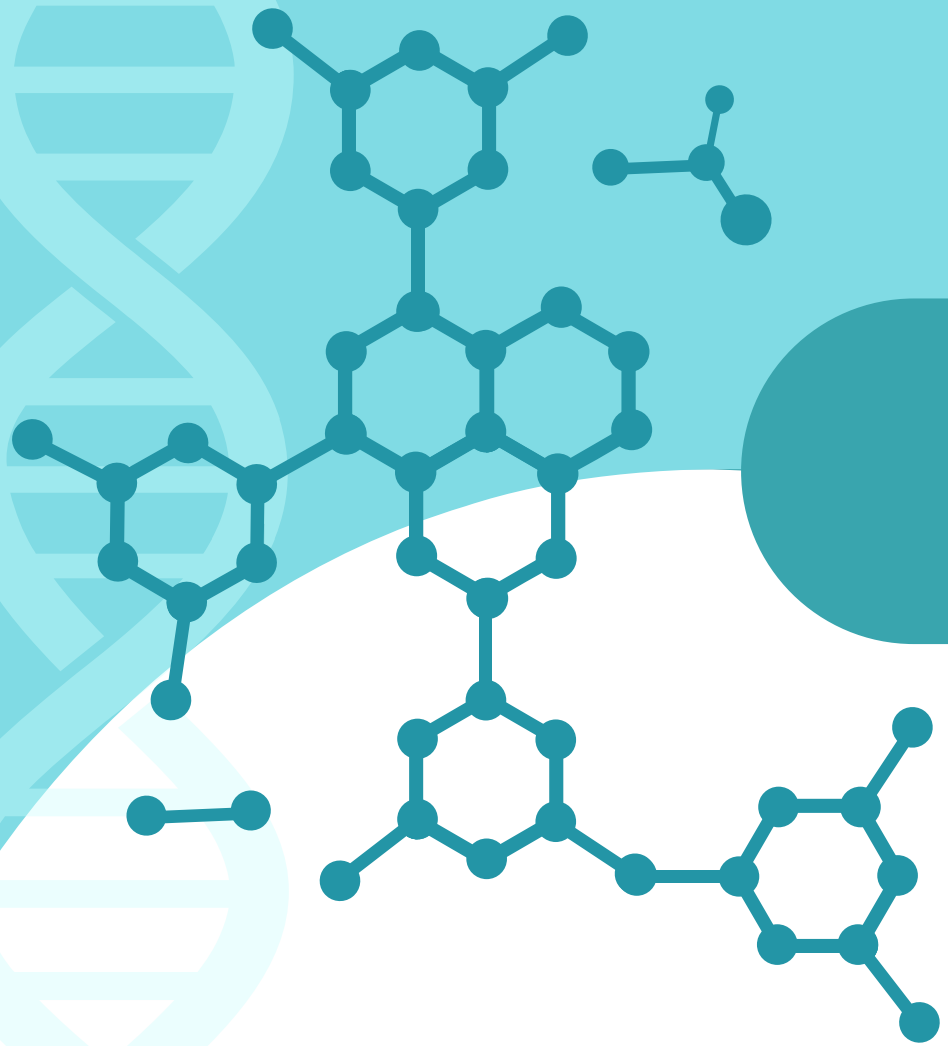
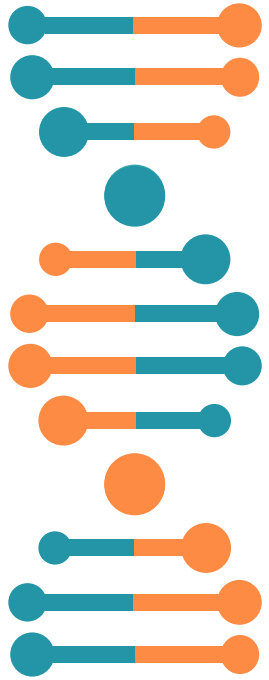


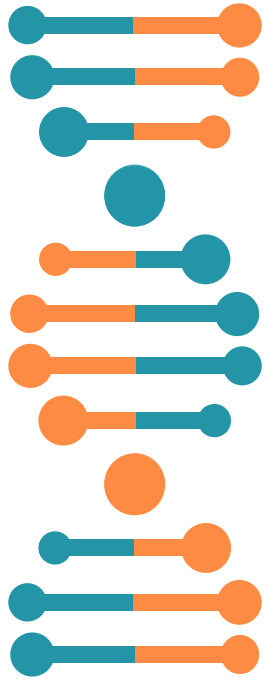
LAB 6 - Objectives

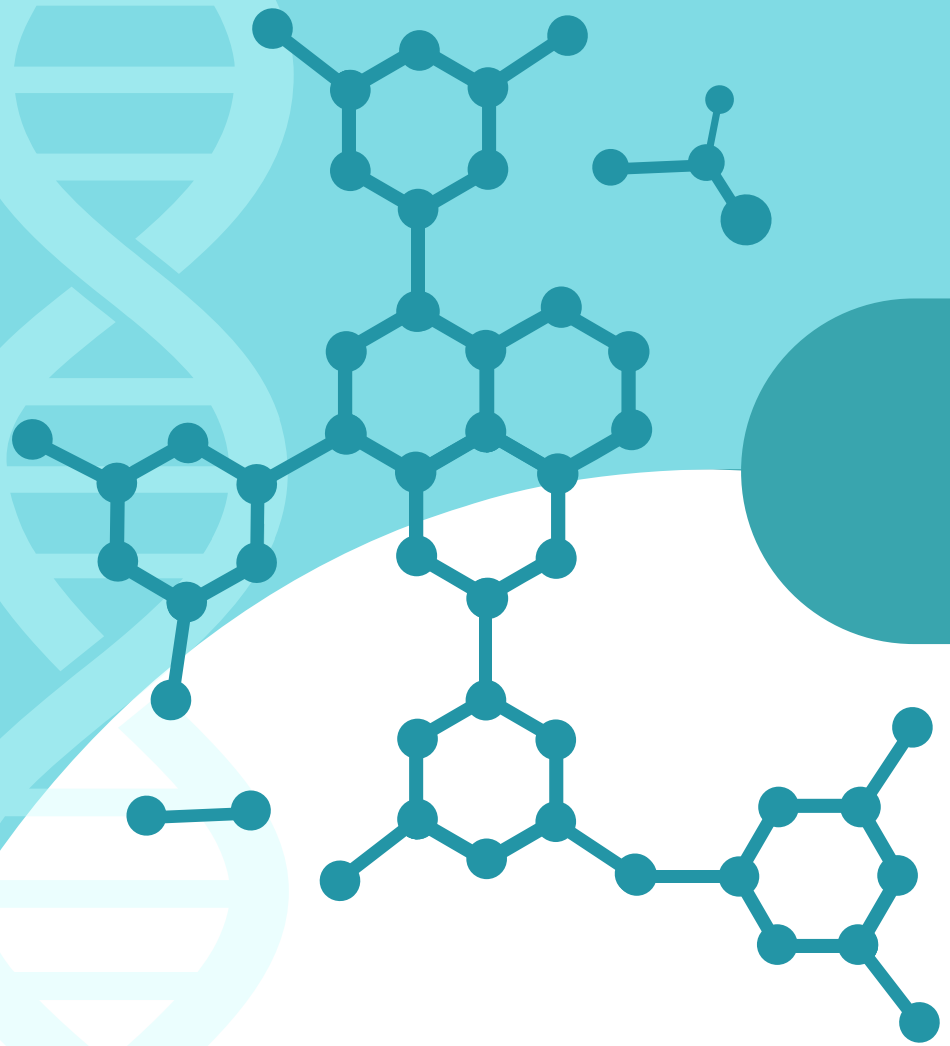
Objectives

- Build gene fusion sequence from breakpoints
- Bayesian Convolutional Neural Networks on gene fusions sequences



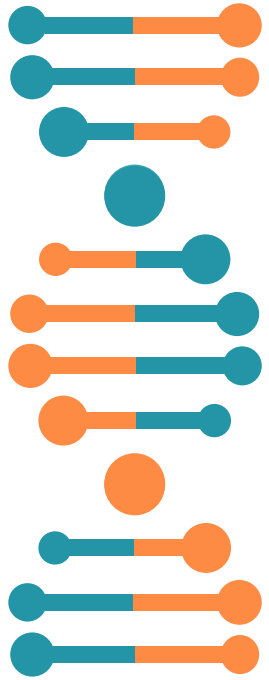
Gene fusion sequences





LAB 6 - Assignments

Assignment 1: Implement a B-CNN



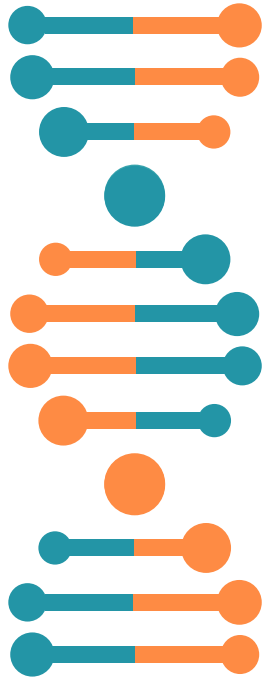
Download training_set.csv and test_set_1.csv from the Teaching Portal and adapt the steps provided you during the previous lesson in order to implement a 1D Bayesian Convolutional Neural Network.

The network should distinguish between oncogenic and not oncogenic gene fusions exploiting the gene fusion sequence.

In details, analyze and explore the certainty classification value for the samples which are correctly classified.

LAB6 – Take home message

- The oncogenic property is complex: most likely you need additional information to succeed in the classification task.



Questions?

Remember:
no question is
stupid