**Simultaneous Prediction of Functional States and Types of cis-regulatory Modules**

**The code and models for training, evaluation, and testing:**

* **Enhancers:**
  + Train\_evaluate\_model\_enhancer.py
  + Model trained with logistic regression: LogisticRegression-CA-H3K27ac-H3K4me1.joblib
* **Silencers**
  + Train\_evaluate\_model\_silencer.py
  + Model trained with logistic regression: LogisticRegression-CA-H3K9me3-H3K27me3.joblib

**The code for predicting active enhancers and silencers in the whole genome:**

* Predict\_enhancer.py
* Predict\_silencer.py

**The training datasets for enhancers and silencers**

* All-Enhancer-Features-0.3.zip
* All-Silencer-Features.zip

**Predicted active enhancers and silencers in K562 cells**

* human-enhancers-K562.CRM.minmaxLogisticRegression.predict.zip
* human-silencers-K562.CRM.minmaxLogisticRegression.predict.zip