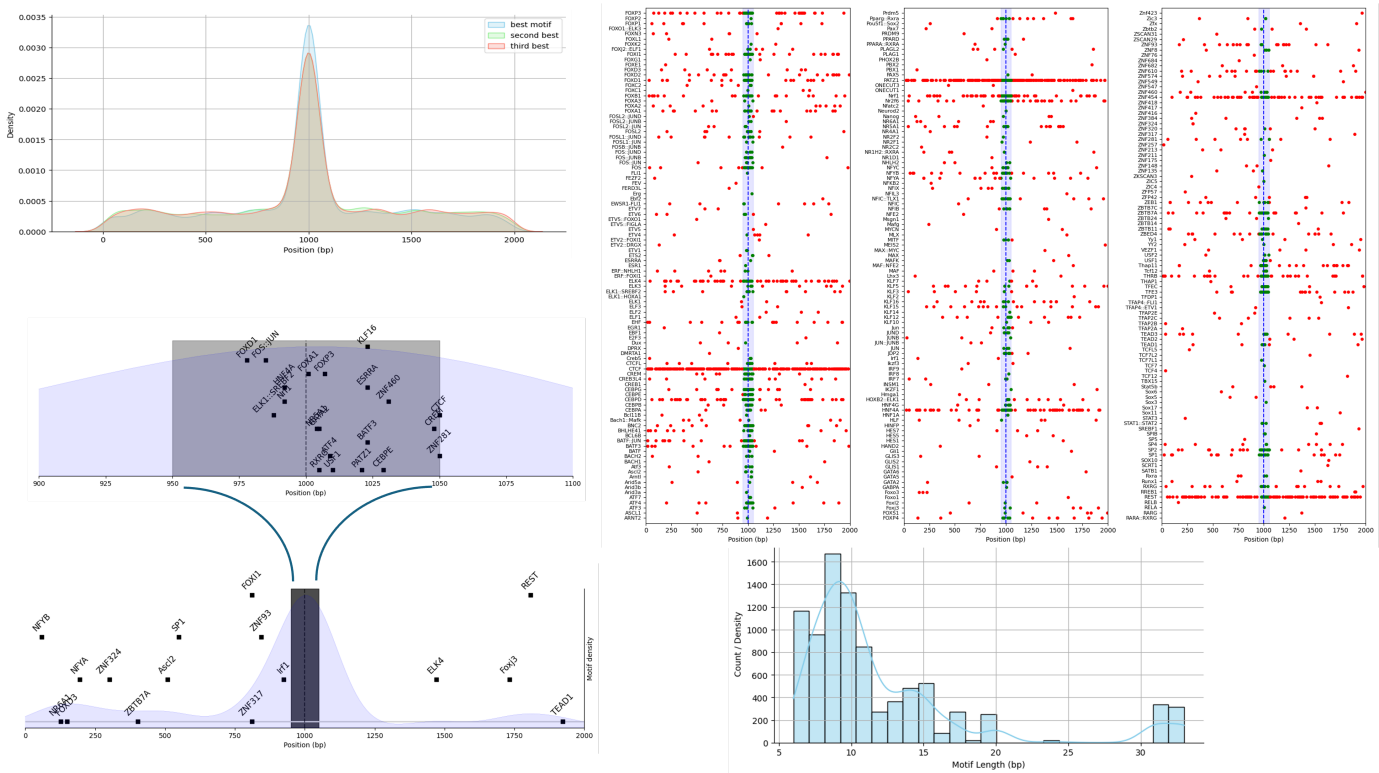


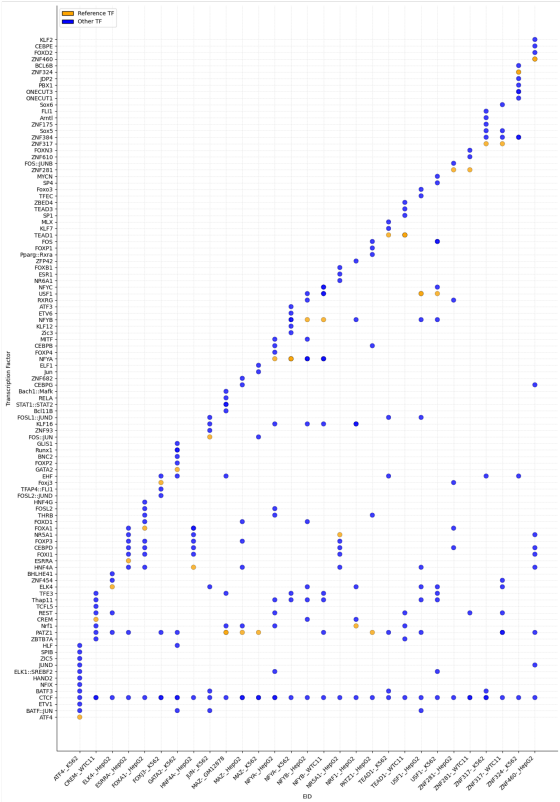
Weekly Report

This week, I analyzed the output from the DeepFootprinting framework, concentrating on the positioning of the identified TF motifs in relation to the inputted ChIP-seq peaks. This analysis allowed me to generate the plots below, illustrating the primary locations of the TF motifs, their specific placements, and their distributions. Additionally, we can determine whether each TF motif is centered, outcentered, or exhibits both characteristics. I also included a histogram that illustrates the lengths of the motifs.



I performed another analysis focusing on additional TF motifs beyond the one of primary interest (i.e., the expected TF associated with the ChIP-seq peaks). This analysis enabled me to create figures that illustrate which TFs are present, the number of patterns (e.g., areas of significantly high contribution scores) within a set of peak sequences, and a

specific example of the output for the TF HNF4A, displaying the various matches of TFs.



pattern	num_seqs	modisco_cwm_fwd	modisco_cwm_rev	match0	qval0
pos_patterns.pattern_0	1007			MA0114.5	1.037980e-03
pos_patterns.pattern_1	109			MA0139.2	1.669850e-10
pos_patterns.pattern_2	105			MA0836.5	2.362600e-03
pos_patterns.pattern_3	102			MA0042.5	4.580370e-04
pos_patterns.pattern_4	90			MA0850.5	7.948500e-02
pos_patterns.pattern_5	75			MA1540.3	1.899120e-02
pos_patterns.pattern_6	22			MA0148.5	8.480210e-01
pos_patterns.pattern_7	21			MA0148.5	1.084770e-01

