Student project

Decoding the functional structure of genomes

Despite the increasing availability of entirely sequenced genomes the identification of functional subunits remains difficult. This explains why the purpose of large fractions of e.g. the human genome remains to be elucidated. By integrating various approaches in a common framework, that we named as moses, we are trying to decode the functional structure of DNA sequences.

In this student project new modules will be developed that add algorithms to the framework which are specialized for the identification of structural features in a DNA sequence, e.g., promoters, terminators or genes of non-coding RNAs.

Additionally customized analysis pipelines for the detection of specific structural features will be developed. These pipelines will be optimized for either increasing the sensitivity or specificity of the feature detection.

Requirements

- Experience in Java programming
- Prior knowledge about genome biology is beneficial but not mandatory

Contact

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