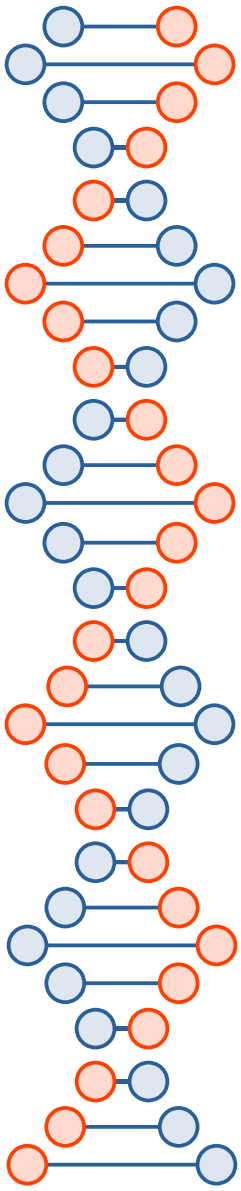
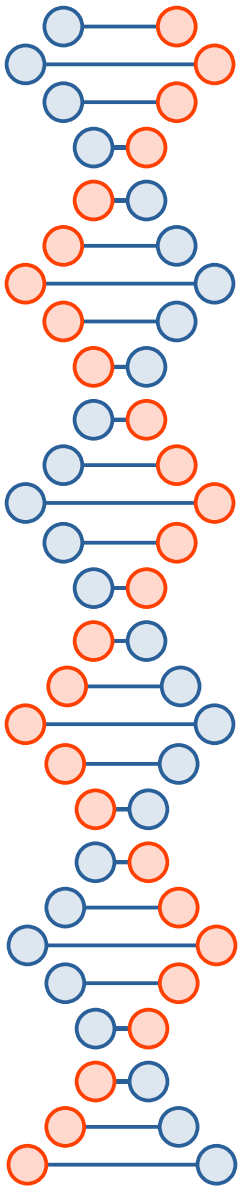


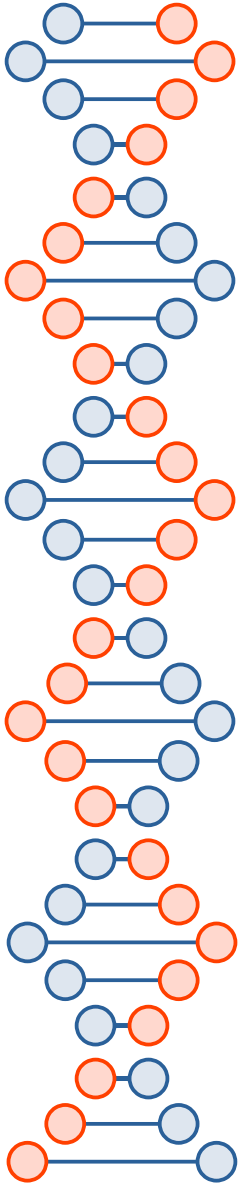
Project Plan Until End

Graham Smith
03/18/2022



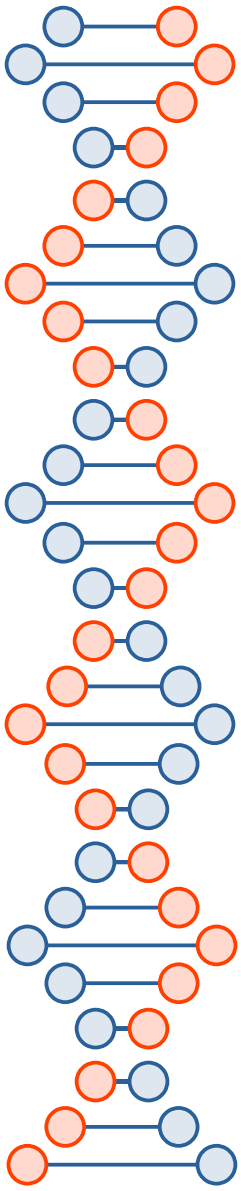
Now/Near/Far

- Now
  - Benchmark initial model
  - Develop autoencoder model
  - These run in parallel
- Near
  - Benchmark autoencoder model to justify performance
- Far
  - Increase dataset size to expand to more languages/samples



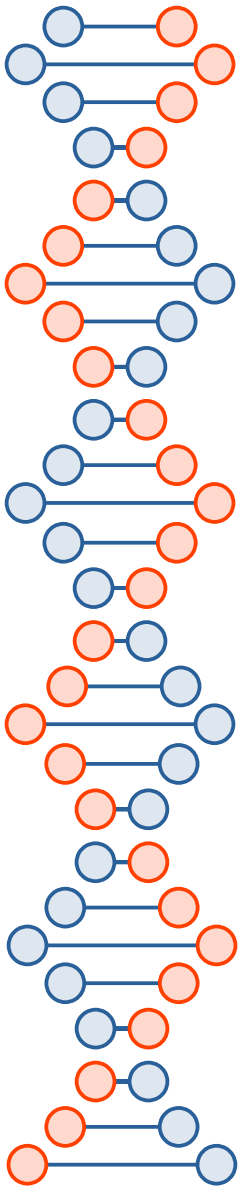
Now – Benchmark baseline model

- Add metrics based on proposal and feedback
  - Multi-class accuracy
  - AUROC
  - Add mean/STD
- Anything else which seems like it might be beneficial
  - Try starting without a pre-trained network?
  - Experiment with unfreezing different layers to see where most impact is had



Now – Autoencoder Development

- Determine autoencoder design and how it will be integrated into the ResNet50 architecture
- Translate this design into code
  - Determine interaction between Pytorch's ResNet50 class and our encoder (presumably a class)
- Deliverable is a class which implements ResNet50 with autoencoder modification



Near/Far

- Near
  - Take autoencoder modified model and run all the benchmarks on it
  - Data analysis and all that
- Far – If time allows
  - Expand language set to include 6 languages
  - Expand dataset to use more samples (currently only a subset of each selected language)