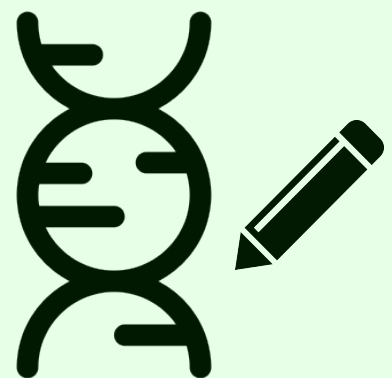


DNA

Viral Sequencing



Synthesis



Discrete

Collection Date

Padded Sequence

| | |
|------------|------------------|
| 2000-02-14 | MEANAT...NNSTDAA |
| 2001-12-25 | MEANAT...NNSTDAA |
| 2005-01-01 | MEANAT...NNSTDA* |
| 2008-09-01 | MEANAT...NSTDAA* |
| 2011-07-04 | MEANAT...NNSTDAA |
| 2016-07-01 | MEAQAT...STDAA** |
| 2017-01-01 | MEAQAT...NNSTDAA |

Binary Format

| | | | | | | | | |
|----|---|---|---|-----|---|---|---|----|
| [0 | 1 | 0 | 0 | ... | 0 | 0 | 1 | 0] |
| [0 | 1 | 0 | 0 | ... | 0 | 0 | 1 | 0] |
| [0 | 1 | 0 | 0 | ... | 0 | 0 | 0 | 1] |
| [0 | 1 | 0 | 0 | ... | 0 | 0 | 0 | 1] |
| [0 | 1 | 0 | 0 | ... | 0 | 0 | 1 | 0] |
| [0 | 1 | 0 | 0 | ... | 0 | 0 | 0 | 1] |
| [0 | 1 | 0 | 0 | ... | 0 | 0 | 1 | 0] |

Likelihood

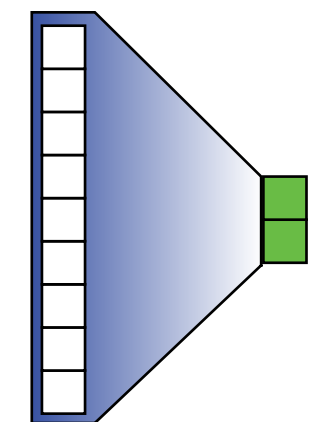
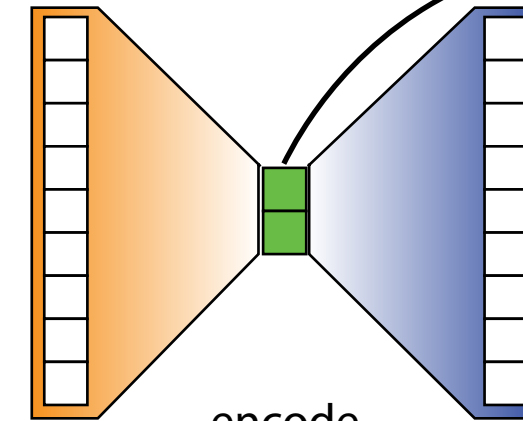
| | |
|-------|------------------|
| 0.459 | MEAQAT...NNSTDAA |
| 0.331 | MEAQAT...NNSTDAA |
| 0.120 | MEAQAR...NSTDAA* |
| 0.031 | MEAQAT...STDAA** |
| 0.029 | MEAQAT...NNSTDAA |

Predicted Sequences

| | | | | | | | | |
|----|---|---|---|-----|---|---|---|----|
| [0 | 1 | 0 | 0 | ... | 0 | 0 | 1 | 0] |
| [0 | 1 | 0 | 0 | ... | 0 | 0 | 1 | 0] |
| [0 | 1 | 0 | 0 | ... | 0 | 0 | 0 | 1] |
| [0 | 1 | 0 | 0 | ... | 0 | 0 | 0 | 1] |
| [0 | 1 | 0 | 0 | ... | 0 | 0 | 1 | 0] |

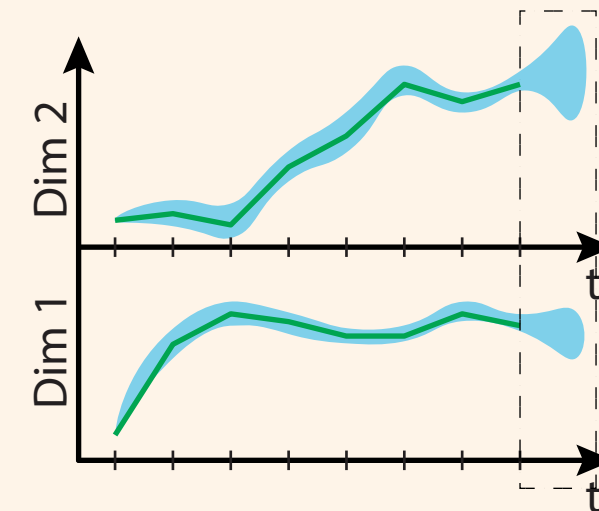
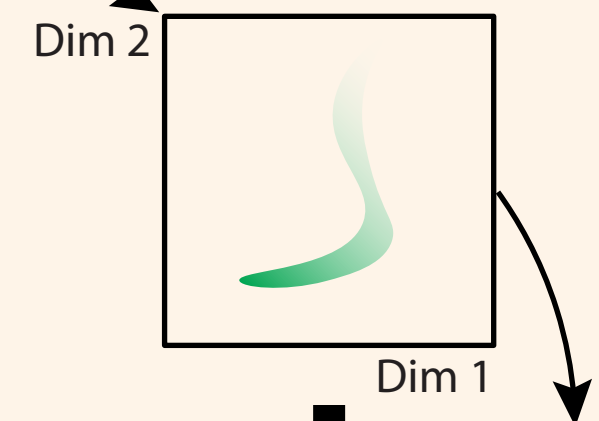
Translator

Variational Autoencoder



Continuous

Projection



Gaussian Process