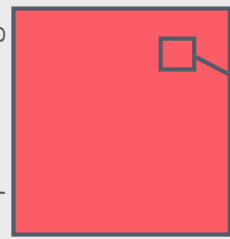
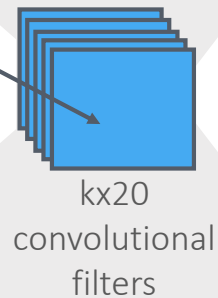


One-hot
encoded
peptide
sequence of
peptide p_i

sequence length

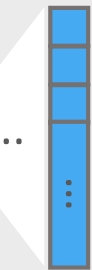


amino acids



$k \times 20$
convolutional
filters

...



peptide
sequence
representation

...

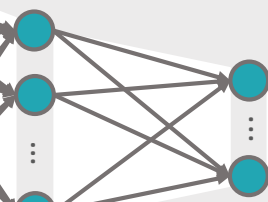
concatenate
with peptide
charge states



concatenated
representation

charge states

dense layers



...



Peptide
coefficient
 c_i

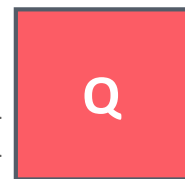
...

Loss function

$$\sum_{k=1}^{\kappa} \sum_{\rho \in P} \sum_{p_i \in \rho} (q_{ik} - c_i \alpha_{\rho k})^2$$

Matrix of
observed
abundances

peptides



runs

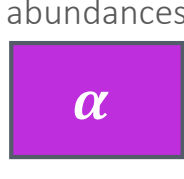
Protein
labels

peptides



Matrix of
adjusted protein
abundances

proteins



runs