

CNN-interest heatmaps of the top 10 sequences by probability classified to each tumor category

More yellow subsequences had greater impact on classification of the sequences

Bladder

TACCGAAGAGGTTGCAAATGGCAATGTAGCGGTCAAAGGCCATGGCCACCAACACAATGCTCTCCATAGCAGTGAAGAAATGGATGAAGAACATGTGAG
TACCGAAGAGGTTGCAAATGGCAATGTAGCGGTAAAGGCCATGGCCACCAACACAATGCTCTCCATAGCAGTGAAGAAATGGATGAACAACATGTAAG

CTGTTCTACTTTGCAATTCTCGATCTACACGATCCATACTCTGTATTAACTCTTCCTTGAGAGTTTGAGGTGAAGCATTGATCATCTCCACAT
CTGTTCTACTTTGCAATTCTCAATCTACACGATCCATACTTGATTAACTCTTCCTTGAAAGTTCAAGGTAAAGCATTGATCATCTCCACAT

GATGTTGAATAAGGTGTGAATGAAGTCTAAAGGCCTTACACATATCATGCATTGAGGTTCTCACAGTATGAATTCTCTGATGTCTTGAGGTG
GATGTTAAATAAGGTGTGAATAAAGTCTAAAGGCCTTACACATATCATGCATTGAGGTTCTCACAGTATGAATTCTCTGATGTCTTCAGGTG

AGATGAATGTCCTGGCGCACGGACTCCTGCAGCTGGCCAGGGCTGCGCGAACACGCGGAGCGCACCCGCAGTCAGCTGAGCGCGCTGGAGCGCGCCT
AGATCAATGTCCTGGCGCACGGACTCCTGCAGCTGGCCAGGGCTGCGCGAACACGCGGAGCGCACCCGCAGTCAGCTGAGCGCGCTGGAGCGCGCCT

CAGGCTTGGTCACCTTGATTCTATATTCTCTTCCTCATCTCATCAAAAACCCATCTTCTTCATCATCGTCATCATCGTTTC
CAGGCTTGGTCACCTTAATTCTATATTCTCTTCCTGTTCATCTTCATCATCAAAAACCCXXXTCTTCATCATGATCATCGTCATCATCGTTTC

TGGAGAAGATCTGGACAAGCTCCACAGAGCTGCCTGGTGGGTAAAGTCCCCAGAAAGGATCTCATCGTCATGCTCAGGGACACTGACGTGAACAAAGAAG
TGGAGAAGATTGGACAAGCTCCACAGAGCTGCCTGGTGGGTAAAGTCCCCAGAAAGGATCTGATCGTCATGCTGAGGGACACTGACGTGAACAAAGAAG

CACGTCCGTGGAGAAGATCTGGACAAGCTCCACAGAGCTGCCTGGTGGGTAAAGTCCCCAGAAAGGATCTCATCGTCATGCTCAGGGACACTGACGTGA
CACGTCCGTGGAGAAGATTGGACAAGCTCCACAGAGCTGCCTGGTGGGTAAAGTCCCCAGAAAGGATCTGATCGTCATGCTGAGGGACACTGACGTGA

CACGTCCGTGGAGAAGATCTGGACAAGCTCCACAGAGCTGCCTGGTGGGTAAAGTCCCCAGAAAGGATCTCATCGTCATGCTCAGGGACACTGACGTGA
CACGTCCGTGGAGAAGATTGGACAAGCTCCACAGAGCTGCCTGGTGGGTAAAGTCCCCAGAAAGGATCTGATCGTCATGCTGAGGGACACTGACGTGA

TGGACATGGATAACAGAACTGATGACTCCATTGAAGACAAGGTGTGGATGAAGAAGAGCTGAGTGAAACAGGCAGGGATGCCAATCTCTCTGGTATCAA
TGGACATGGATAACAGAACTGATAACTTCACTGAAGACAAGGTGTGGATGAAGAAGAGCTAAGTGAAACAGGCAGGGATGCCAATCTCTGTGGTATCAA

AGGTGGAGTTCAGCTCTGGCATTGTCTGGATAATGCTTTCTTCTCTGTGGACACGCAGGCAGGGCCCCGGTGAECTGAGATGGCATCGTCTCT
AGGTGGAGTTCAGCTCTGGCATTGTCTGGATAATGCTTTCTTCTCTGTGGACACGCAGGCAGGGCCCCGGTGAECTCAGATGGCATCGTCTGT

Breast

GGAGAACCCCTATGTCTGCAGGGAGTGTGGCGGGGCTTCGCAATAAGTCACACCTCCTCAGACACCAGAGGACACACAGGGGAGAACGCCCTACGTC
GGAGAACCCCTAXXXCGTC

GGAGAACCCCTATGTCTGCAGGGAGTGTGGCGGGGCTTCGCAATAAGTCACACCTCCTCAGACACCAGAGGACACACAGGGGAGAACGCCCTACGTC
GGAGAACCCCTAXXXCGTC

GGGAGAACCCCTACGTCTGCAGGGAGGATGAGTAAGTCATTAGTAATAAAACCTCATCTCAATAGCCACAAAAAGACAAATGTGGTCACCACACACTTGC
GGXXCACACACACTTGC

GGGAGAACCCCTACGTCTGCAGGGAGGATGAGTAAGTCATTAGTAATAAAACCTCATCTCAATAGCCACAAAAAGACAAATGTGGTCACCACACACTTGC
GGXXCACACACACTTGC

GAACTGACCAGCGAXXXXXXXXXXXXXXXXXXXXXXXXXXXXXCTCTGCAGCTGCTCGTGCCACTTGTCAACTCAGGAATCCTCTCAATC
GAACTGACCAXXXGTGTGTGTGTGTGTGTGTGCXXXXXXXXXXXXXXXAXXXXXXXXXXXXXXAXXXXXXXGXXXXX

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CCCATGTGGAGTGTTCGCCTGCTCACACGTGCCATGCCGATGCCGAGTGCCTGCTCACACGTGCCATGCCGATGCCGAGTGCCTGCTCACACGTGCCATGT
CCCAXAXXGXXXXCXXXXXXXXXXXXXXXXXXXXXXCTXXXXXXXXXXXXXXXXXXXXXXCTXXXXXXXXXXXXXXGXXGT

CCCATGTGGAGTGTTCGCCTGCTCACACGTGCCATGCCGATGCCGAGTGCCTGCTCACACGTGCCATGCCGATGCCGAGTGCCTGCTCACACGTGCCATGT
CCCAXAXXGXXXXCXXXXXXXXXXXXXXXXXXXXXXCTXXXXXXXXXXXXXXXXXXXXXXCTXXXXXXXXXXXXXXGXXGT

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CTTCCAACCAGAACCAATTXXXXXXXXXXCTXXXXXXXXXXXXXXCTXXXXXXXXXXXXXXCTXXXXXXXXXXXXXX

Colorectal

GAATTTTXXXXXXTXXXXXXTXXXXXXTXXXXXXTXXXXXXTXXXXXXTXXXXXXAAGGGGAAATGCTTCTGTTGCTGTTAGACCCA
GAXXXXTTTATAAAAAAAAAAAAAAAAATGCTTCTGTTGCTGTTAGACCCA

TTTCAGAGGGTTCTTCCAAAAAAATGCACCTGGTAAAGAAATAAGTATATTAGTTGGAAGAAAAATTTTXXXXXXTXXXXXX
TTTCAGAGGGTTCTTCCXAAAAATGCACCTGGTAAAGAAATAAGTATATTAGTTGGAAGAAAAXXXTTTAAAAA
GAGCGAGAAGCTGGCTTGGCGGCCAACCTGCCCAACACACCACCTCGTGGGACACAACCCCTGCGGCCACTGGTTCTXXXXXXGGAGGAAG
GAGCGAGAAGCTGGCTTGGCGGCCAACCTGXCCCCAACACACCACCTCGTGGGACACAGCCCTGCGGCCACTGGTTCTGGAAGGAAGGAAGGAAG

TGAGACCCTGTTGXXXXAAACAAAACACTTACCTCCCTCCCTTTTATCTCTCTAATATAAGTTCAGCCCTTCTTAGCAATCGT
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TTTATGTGACAATTGTCTTACAGTTCAAXXTTTTTGTGTTATTGTAGTATAGCTTCCGACCTGAAAAACCGAGTGCTCCTCAGGCCAG
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TCATCCCTAGAGATAGAAGTGCTTGATAATTCTGCTAAAATGATAACTAATTCTTTGTTCTTAGGTGGTATCGGGCCCCCGAGTTACTATTGGA
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AGCTTTTAATTAAAAGAAAAAGAGAGAGAGAAAAATTCCACATTCAATTAAATCTCTTCTGATAATTCTGGTTCCAGCTGAC
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TACGCACCCACCTACTTCCCCGGGGAGAAGCCAXCCCCCTACGCACCCCTGATAGAGGCGTGGAGTAAAGATAACTTGTGTTTXXXXX

Glioma

GGTCCCTCTGGCCAGTACACCCATGAATTGATGGAGATGAGCAGTTACGTGGACCTGGAGAGGAAGGGAGACTGCCTGGCGGTGGCCTGAGTXXXXXX
GGTCCCTCTGGGCAGTTAGCCATGAATTGATGGAGATGAGGAGTTCTATGTGGACCTGGAGAAGAAGGAGACTGCCTGGTGGTGGCCTGTGTTCTCTC
AGCCCCATCTTACCCATCTGGTGTGAGTTGGACAAGCTCCTCTCCAGCGTCTACCCGATAATTATCATGCTTCTCCTCTTCAACGAGCAAA
AGCCCCATCTTACCCATCTGGTGTGAGTTGGACAAGCTCCTCTCCAGCTCTACCCAATTTTATCATGCTGCTTCTCCTTCAATGAGCAAA
ACTCATGTCGGCCTCACCTGGGTGGAGACACATCCACCGAGGCCTCGATGGACTGCCTGGGGCAGACACCCCCAACGACGGCATCTGAACCTGGC
GCTCACGTTGGCCTCCGCCTTGAGCGCAGACACATCCACCATGGCCTCGATGGACCTGCCTGGGGCTGATGCCCGAATGATGGCATCTGAACCTGGC
CTTGCCTGGGGCTGACGCCCGAACGATGGCATCTGAACCTGGCAXTTTGAACCTGCTGTCTTGGCAGTCACATCCTGTCGCCAGGGACAGTTC
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CTAATCCTCTCATGCAATGACACATCAATATTGAAAAGGTTCTTTCATCTGCTGTATAGTAATGATTGTTTCTGCAATCATCATCGCTTCCT
CTAATCCTCTCATGCAATGACACATCAATATTGAAAGAGGTTATTTCATCTGCTGTCTAGTAATGATTGTTTCTGCAATCATCATTACTTCCT
CTGAACATGACTCAGAACCTTCGTTCACAGCAGGCACGGTCTCGATAACGGTGAGTTCTCATCCCCTACAAAGATATGGCGGGGGGGCAAG
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CATGGAGGGGAGACTCACGTGGCCTCCACTTGGGTGCAGACACATCCACCGAGGCCTCGATGGACTTGCCCTGGGCTGACGCCCGAACGATGGCATC
CATGGAGGGGAGGGCTCACATCGGCCTCCACCTCGGTTAGGCACATCCACCGTGGCCGCGATGGACTTGCCCTGGGCGTCGCCAAATAAGGGCATC

Lung

The figure displays a sequence logo visualization for Lung tissue, consisting of 10 horizontal rows of DNA sequence data. Each row represents a single DNA strand. The sequence is color-coded based on the base composition at each position: G (green), C (dark green), A (light blue), and T (yellow). The logo shows a strong bias towards Guanine (G) and Cytosine (C), with both bases being the most frequent at nearly every position across all 10 rows.

ACTCCATCCGAATCAGAGATCCACTGGCTTCTTCCAGAAGCCTGCAGGGCTGCCTACCCCACCGGGGCCACCCCCAGACCCCTCACCGATGAGCATG
ACTCCATCCGAATCAGAGATCCACTGGCTTCTTCCAGAAGCCTGCAGGGCTGCCTACCCCACAGGGGCCACCCAAGACCCCTCACCGATTAGCATG
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GCCATGTTCGCAGGGGTGCAGGGGTCGAGCGCTACGCCTCGGCCACCCGCCGGGAGGCCGGGGAGGGGXXXXXXXXXAGTTCGCGGC
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CAGGGTATGTTCACGGGGCGATGCTGCACCTCCAGATGGCCCATCGCTGACCCCTGGGAACATTAAATGCCTCACAAACGTTGTGACTCAGTTCCCGTAG

Pancreatic

CCGGGCTGGGTGACTCCATATGCTTCAGCCCCAGTATCTCAGCACCAAGCCCCAAGCTCAACCCGCCCCCTCTCCTCATGCTAATAAAAAGAAACA
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Prostate

CGACGTGTGCTGAACCACGAAGTCCACGGTCTCCTCTGGCAGGGAGCGCCCCACAAACTCCAGGATCTTGATCTCCCTTTGGGTTCTGAGCAGCA
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CCCCATCAGGCTXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXGAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGC

Renal

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Skin

ACGGAGAATTATCCATCAGATTTGCCGTGGAGAGACTTTGGCGAGAAAATGACTTCCAGTGATGTTGAGCTGGATCCGATTAAGTATAAGCTCCCC
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TCCATCCGCAGAGCAGAGCAGTGGGAGGAGACGCTATGACCCCCATCCTCACAGTTCTGATCTGTCTGGTGAAGAGGGAGAAGAGCTTCTAA

Stomach

TCTACGTCGAAGAAGTAATTCA_CCCCCCCCCAAAGGTCTGCACACAGGAGAAAACAGGAAGCACGGACAGCGCCCCCATCAGTTCATGCACTCACAGGCAC_T
TCTACGTCGAAGAAGTAATTCA_XCCCCCCCACGGTCTGCACACAGGAGAAAACAGGAAGCACGGACAGCGCCCCCATCAGTTCATGCACTCACAGGCAC_T

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CTTCTGAAATCCTGTCTGACTACATCCAGCAGTCCACCATGGGAAGAGAGACCTCATCCACGT_TCACCTACAGATGCGATGATCAGATGXCCCTGT

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CCCACCCCAAGGCC_CCCCCCAACTCTGCCTGGCATCTTGT_CATCCAAAACCAGCTAGGC_GTTCCCCGCCTGCCAGCAACCCGGCCCTACTGCCAGGC
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Uterine

GAAGAAATTAGGAACATACTTATTAATTAGGCTTACAGCGGGGGATTGAGCTTACAGGATTCCATGGTAAAGCTGAACGTGAAACAAATTCTCA
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Liver

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