## CSCI 551: HW1

#### jonathanhenke

August 2023

## 1 Question 1:

For the following mRNA sequence, can you extract its 5' UTR, 3' UTR and the protein sequence?

#### ${\tt ACTTGTC} \textbf{ATG} \texttt{GTAACTCCGTCGTACCAGTAG} \texttt{GTCATG}$

Answer: The 5' UTR is ACTTGTC, 3' UTR is GTCATG and the protein sequence is ATGGTAACTCCGTCGTACCAGTAG which is MVTPSYQ

# 2 Coding

Figure 1: Output of code searching in test fasta file for tac  $\,$