

## PSEUDOCODE

### **encode.c**

Main:

Take in command line arguments if needed

Getopt (" v , i ,o ")

v=print stats , i =input file , o= output file;

open( file to read, stdin if not specified), read only;

While there is symbol in file:

    Create a trienode;

    If trienode has children:

        Prev\_node = current node

        Curr\_node = nextnode

    Else:

        Create a children for trienode and assign with a code

        Curr\_node = root:

        Increment code

    If code == MAXCODE:

        Reset trie node back to root

### IO.c

read\_sym(infile,sym):

    If index reaches 4096 or first time reading:

        Read in a block of bytes (4096 characters)

        Store in a static variable array;

        Create static index=0;

    If a symbol exists in array:

        Return the character;

    Else:

        Return NULL;

```
Void buffer pair(outfile,code,symbol,bitlen):  
    Reverse bits for code with bitlen length;  
    Reverse bits for symbol with bitlen length  
    Concat code and symbol  
    Write to file
```