Trần Tinh Chí

1351063

ECE341-Document HW3

Because the algorithm is very simple, so I just so you the most two difficult algorithm (checking Identity Matrix and Transpose Matrix), even though they are very easy.

**Note: Both C++ codes and MIPS codes are implemented by myself.**

int checkMatrixIdentity ( int \* arr, int m, int n) {

if (m != n)

return 0;

int i = 0;

while (i < m) {

int j = 0;

while (j < n) {

if (j != i) {

if (arr[j + i\*n] != 0)

return 0;

}

else if (arr[i + i\*n] != 1)

return 0;

}

i += 1;

}

return 1;

}

int \* transpose (int \* arr, int m, int n) {

int i = 0;

int \* temp = NULL;

while (i < m) {

int j = 0;

while (j < n) {

temp1[j\*m + i] = arr[i\*n + j] ;

}

}

return temp;

}