Project 4: FFT Project Due 11/7/24
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The fft.py program does a one dimensional Fourier Transform. To do a two dimensional Fourier Transform one needs only do a one dimensional Fourier Transform in each of the directions. Write a program which takes two two dimensional arrays, ar[][] and a[][], containting the real and imaginary data and does a two dimensional transform.

The first dimension is easy, just call fft() with each array,

in a loop call: fft.fft(ar[i],ai[i])

but to do the second dimension, you will need to do a bit of work copying things around.

Test your code by giving it a 512 X 512 matrix with all 0 unless

$$((i-256)*(i-256)+(j-256)*(j-256))<7$$

and then make a pic of the FT power function.