Matrix-Based Transforms

Image Processing
CSE 166
Lecture 12
Reading

• Digital Image Processing, 4th edition
  – Chapter 6: Wavelet and Other Image Transforms
    • Sections 6.2
General inverse transform using basis vectors

\[ f(x) = T(0)s(x,0) + T(1)s(x,1) + \ldots + T(N-1)s(x,N-1) \]
Matrix-Based Transform

Example: 8-point DFT of $f(x) = \sin(2\pi x)$

real part + imaginary part