Digital Signal Processing

Applications of Digital Signal Processing

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- ▶ Signal filtering (e.g. images)
    - ▶ denoising (remove noise)
    - ▶ inpainting (fill in missing parts)
    - ▶ improve quality

- ▶ Image compression - the DCT transform

- ▶ MP3 compression - subband coding

- ▶ Control theory
    - ▶ e.g. controlling a motor to a target speed profile, in various conditions
        - ▶ PID controller

- ▶ Convolutional neural networks

- ▶ Classification problems
    - ▶ feature extraction of features
    - ▶ classification of features