Model V1:
Fast Fourier Transform (FFT)

Audio

Review of Markov Chain Model

C5 A4 B3
↓
C4 B4 D3
↓
C6 D4 C4
↓
C5 A4 B3
↓
C4 B4 D3
↓
A2 B1 C1
↓
C6 D4 C4

S_1
↓
S_2
↓
S_3
↓
S_1
↓
S_2
↓
S_4
↓
S_3

$$
\begin{array}{c}
 \quad S_1 \ S_2 \ S_3 \ S_4 \\
\begin{array}{c} S_1 \\ S_2 \\ S_3 \\ S_4 \end{array}
\begin{bmatrix}
0 & 2 & 0 & 0 \\
0 & 0 & 1 & 1 \\
1 & 0 & 0 & 0 \\
0 & 0 & 1 & 0
\end{bmatrix}
\end{array}
\rightarrow
\begin{array}{c}
 \quad S_1 \ S_2 \ S_3 \ S_4 \\
\begin{array}{c} S_1 \\ S_2 \\ S_3 \\ S_4 \end{array}
\begin{bmatrix}
0 & 1 & 0 & 0 \\
0 & 0 & \tfrac{1}{2} & \tfrac{1}{2} \\
1 & 0 & 0 & 0 \\
0 & 0 & 1 & 0
\end{bmatrix}
\end{array}
$$

make this matrix row-stochastic

$$
\begin{array}{c}
 \quad S_1 \ S_2 \ S_3 \ \cdots \ S_{n-1} \ S_n \\
\begin{array}{c} S_1 \\ S_2 \\ S_3 \\ \vdots \\ S_{n-1} \\ S_n \end{array}
\begin{bmatrix}
& & & & & \\
& \text{on a} & & & \\
& \text{large} & & & \\
& \text{scale} & & &
\end{bmatrix}
\end{array}
$$