

Music & CS



Frank Lore (High School)



FL Studio: Digital Audio Workstation



High School: Making music with friends

Frank Lore (College + Life After)



Sermstyle (Pitbull, Dua Lipa, Ke\$ha)



MC Jin, Jeremy Lin, Danson Beats
(Basketball & Rap Documentary)

Frank Lore (College + Life After)



Ex-Battalion - Front Page



JR Crown, Thome, Kath -
Kahit Ganyan Ka

Audio Software!



Larrabee Studio in Los Angeles

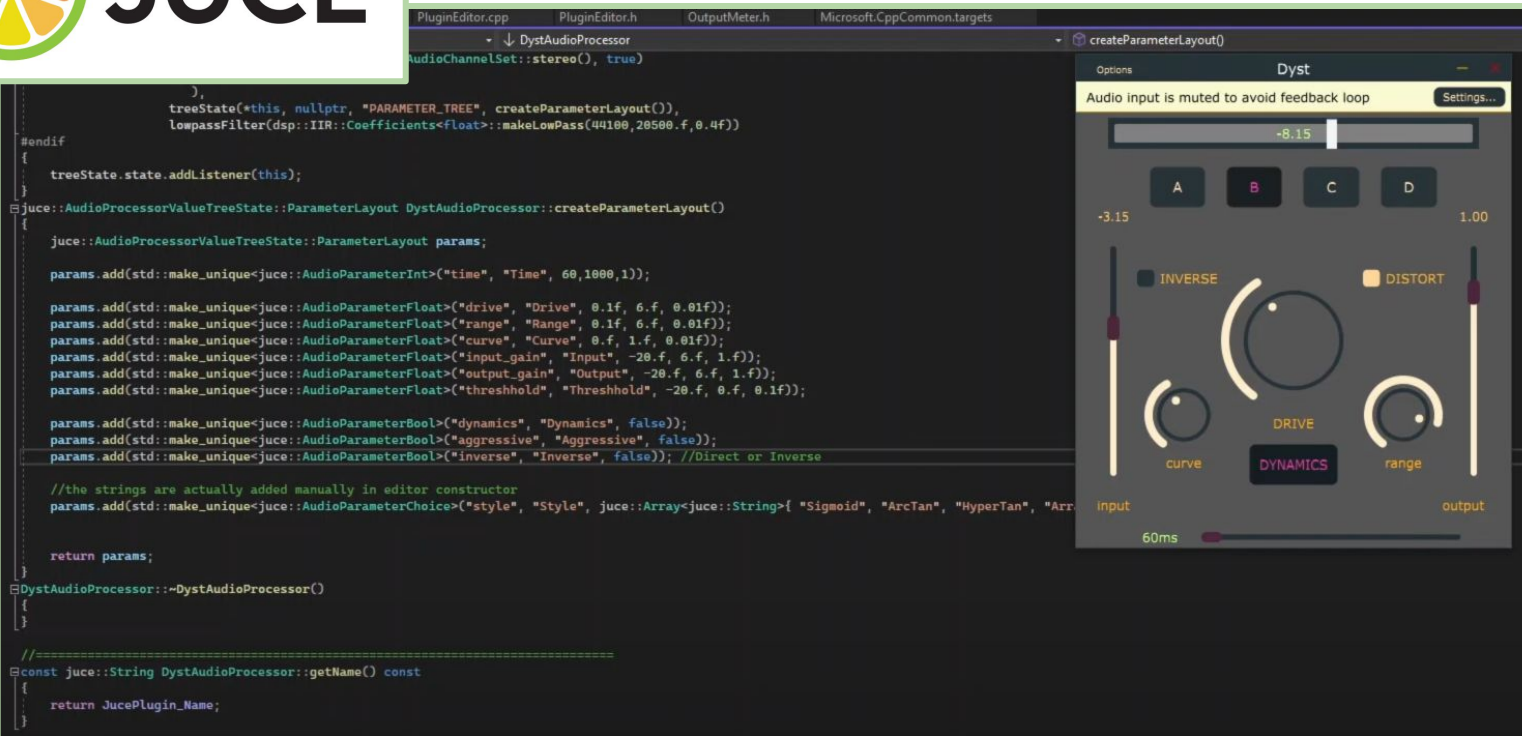


Audio Software: Used to make music!

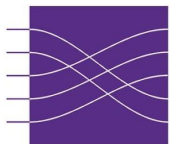
(Lil Nas X - Old Town Road)



JUCE



Use C++ and programming to make your own plugins!



Music
Technology



NYU | STEINHARDT

Digital 

 Signals

Theory 

Digital Signals Theory

```
def similarity(x, y):  
    '''Compute similarity between two signals x and y  
  
    Parameters  
    -----  
    x, y : np.ndarrays of equal length  
  
    Returns  
    -----  
    S : real number  
        The similarity between x and y  
    ...  
  
    # Initialize similarity to 0  
    S = 0  
  
    # Accumulate the sample-wise products  
    N = len(x)  
    for n in range(N):  
        S = S + x[n] * y[n]  
  
    return S
```

Python: Used to study music as audio waveforms, known as *Music Information Retrieval*

Where to Learn More?



Schools and free online resources!