

Generate an Interface

Prerequisites/Requirements :

- **Chrome Browser:** You will need to use the Chrome Browser for this exercise. If you do not have Chrome you can download it here: www.google.com/chrome
- **AWS Account ID:** You will need an AWS Account ID to sign into the console for this project. To set up a new AWS Account ID, follow the directions here: [How do I create and activate a new Amazon Web Services account?](#)
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Your AWS account includes free access for up to 500 inference jobs in the 12 months after you first use the AWS DeepComposer service. **You can use one of these free instances to complete the exercise at no cost.**

You can learn more about DeepComposer costs in the [AWS DeepComposer pricing documentation](#)

Access AWS DeepComposer console:

Click on the below link to get started:

<https://us-east-1.console.aws.amazon.com/deepcomposer>

Enter AWS account ID, IAM Username and Password provided

Click **Sign In**



Account ID or alias

IAM user name

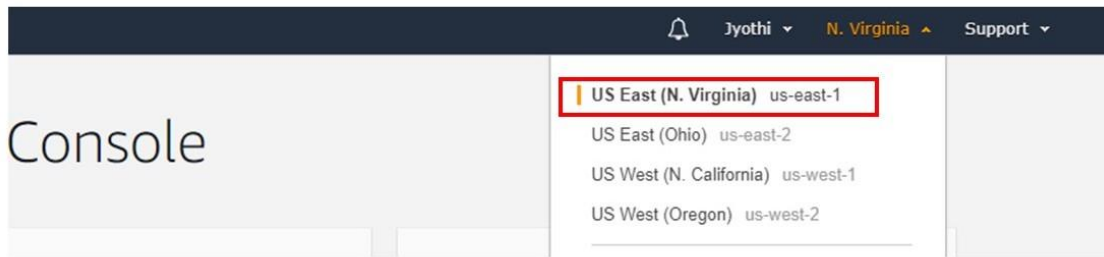
Password

Sign In

[Sign-in using root account credentials](#)

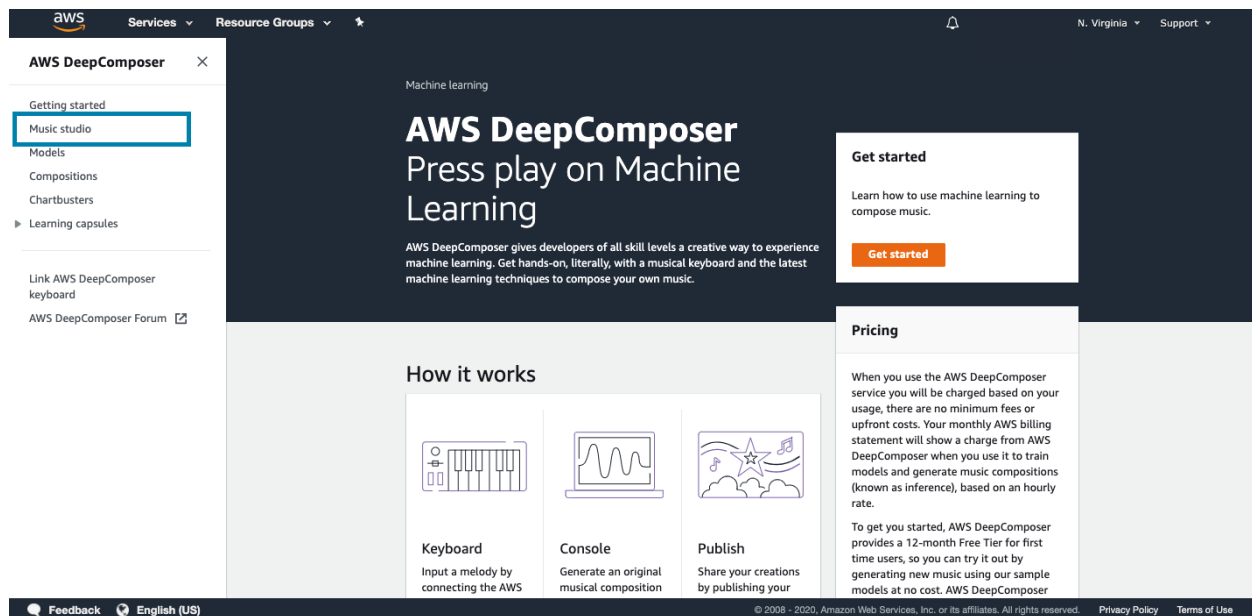
[Forgot password?](#)

Note: You must access the console in N.Virginia (us-east-1) AWS region You can use the dropdown to select the correct region.




Get Started:

Click **Music Studio** from the left navigation menu






Choose an Input Melody




[AWS DeepComposer](#) > [Music studio](#)

New composition

Bar 01 Beat 1   

Choose **Enhance input melody** to generate a melody based on the input melody. The generated melody can then be used to generate a new composition using a GANs based approach.



▶ **Input melody**

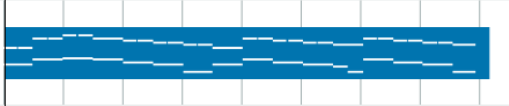
Twinkle, Twinkle, Little Star

▶ Accompaniment

▶ Accompaniment


▶ Accompaniment

123456789




Model parameters [Info](#)

Generative AI technique
Technique used to generate new data

Autoregressive 

Generative algorithm
Architecture used to train the model
Convolutional neural network (CNN)

Model
Model used to generate inferences

Select a model 


▼ **Advanced parameters**

Maximum input notes to remove
Maximum percentage of input melody to remove

100




Between 0% to 100%

Click *play* to play the default input melody




[AWS DeepComposer](#) > [Music studio](#)

New composition

Bar 01 Beat 1   

Choose **Enhance input melody** to generate a melody based on the input melody. The generated melody can then be used to generate a new composition using a GANs based approach.



► Input melody

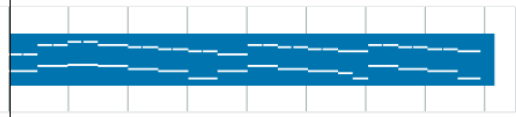
Twinkle, Twinkle, Little Star

► Accompaniment

► Accompaniment

► Accompaniment


123456789



Model parameters [Info](#)

Generative AI technique

Technique used to generate new data

Autoregressive 


Generative algorithm

Architecture used to train the model

Convolutional neural network (CNN)

Model

Model used to generate inferences

Select a model 

▼ Advanced parameters

Maximum input notes to remove

Maximum percentage of input melody to remove

100

Between 0% to 100%

Select **Generative Adversarial Networks** as the **Generative AI technique**.

≡ AWS DeepComposer > Music studio

New composition ▾

Bar 01 Beat 1 ▶ ■ ●

Choose **Generate composition** to create accompaniments based on the input melody.

1 2 3 4 5 6 7 8 9

▶ **Input melody**
Twinkle, Twinkle, Little Star

▶ Accompaniment Choose **Generate composition** to create accompaniments

▶ Accompaniment Choose **Generate composition** to create accompaniments

▶ Accompaniment Choose **Generate composition** to create accompaniments

Model parameters [Info](#)

Generative AI technique
Technique used to generate new data
Generative adversarial netw... ▾

Generative algorithm
Architecture used to train the model
MuseGAN ▾

Model
Model used to generate inferences
Select a model ▾

GAN technique will perform inference and generate accompaniments based on the input melody. [Info](#)

Generate composition

Select **MuseGAN** as the **Generative Algorithm**.

☰ AWS DeepComposer > Music studio

New composition ▾

Bar 01 Beat 1 ▶ ■ ●

Choose **Generate composition** to create accompaniments based on the input melody.

▶ **Input melody**
Twinkle, Twinkle, Little Star

▶ Accompaniment

▶ Accompaniment

▶ Accompaniment

1 2 3 4 5 6 7 8 9

Choose **Generate composition** to create accompaniments

Choose **Generate composition** to create accompaniments

Choose **Generate composition** to create accompaniments

⌂ Live

Time signature Metronome beats/min Octave Settings

Model parameters [Info](#)

Generative AI technique
Technique used to generate new data
Generative adversarial netw... ▾


Generative algorithm
Architecture used to train the model
MuseGAN ▾

Model
Model used to generate inferences
Select a model ▾

GAN technique will perform inference and generate accompaniments based on the input melody. [Info](#)




Generate composition

Select a **Model**.




AWS DeepComposer > Music studio

New composition ▾

Bar 01 Beat 1   

Choose **Generate composition** to create accompaniments based on the input melody.

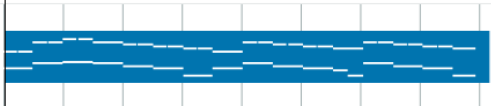
► Input melody
Twinkle, Twinkle, Little Star 

► Accompaniment

► Accompaniment

► Accompaniment

1 2 3 4 5 6 7 8 9



Choose **Generate composition** to create accompaniments

Choose **Generate composition** to create accompaniments

Choose **Generate composition** to create accompaniments

● Live

Time signature

Metronome beats/min

Octave

Settings

Model parameters [Info](#)

Generative AI technique
Technique used to generate new data
Generative adversarial netw... ▾

Generative algorithm
Architecture used to train the model
MuseGAN ▾

Model
Model used to generate inferences
Select a model ▾

GAN technique will perform inference and generate accompaniments based on the input melody. [Info](#)

Generate composition

Click **Generate composition** to generate a composition and an AI generated composition will be created.

☰ AWS DeepComposer > Music studio

New composition ▾

Choose **Generate composition** to create accompaniments based on the input melody.

Bar 01 Beat 1 ▶ ■ ●

1 2 3 4 5 6 7 8 9

▶ **Input melody**
Twinkle, Twinkle, Little Star

▶ Accompaniment Choose **Generate composition** to create accompaniments

▶ Accompaniment Choose **Generate composition** to create accompaniments

▶ Accompaniment Choose **Generate composition** to create accompaniments

Model parameters [Info](#)

Generative AI technique
Technique used to generate new data
Generative adversarial netw... ▾

Generative algorithm
Architecture used to train the model
MuseGAN ▾

Model
Model used to generate inferences
Jazz ▾

GAN technique will perform inference and generate accompaniments based on the input melody. [Info](#)

Generate composition

Click *play* to play the new AI generated musical composition.

The screenshot displays the AWS DeepComposer Music studio interface. At the top, the title 'Comp-3-Jazz' is shown with a dropdown arrow. To the right, a control bar indicates 'Bar 01 Beat 1' and features a play button (a square with a right-pointing triangle) which is highlighted with a purple square. Below the title, a text prompt reads: 'Choose **play** to listen to your new composition. Try different model parameters and then choose **Generate composition** to create new compositions.'

The main workspace contains a piano roll with a horizontal timeline from 1 to 9. Four tracks are visible on the left, each with a speaker icon and a corresponding piano roll visualization:

- Input melody**: Twinkle, Twinkle, Little Star (blue piano roll)
- Acoustic Grand Piano** (green piano roll)
- Acoustic Bass** (green piano roll)
- Drums** (green piano roll)


On the right side, the 'Model parameters' panel is visible, containing the following settings:

- Generative AI technique**: Technique used to generate new data. Set to 'Generative adversarial netw...' (dropdown).
- Generative algorithm**: Architecture used to train the model. Set to 'MuseGAN' (dropdown).
- Model**: Model used to generate inferences. Set to 'Jazz' (dropdown).

A blue information box states: 'GAN technique will perform inference and generate accompaniments based on the input melody. [Info](#)'. At the bottom right, there is an orange button labeled 'Generate composition'.

Input melody:

To create a custom melody, click *record* to start recording




[AWS DeepComposer](#) > [Music studio](#)

New composition

Choose **Enhance input melody** to generate a melody based on the input melody. The generated melody can then be used to generate a new composition using a GANs based approach.

► Input melody

Twinkle, Twinkle, Little Star



► Accompaniment

► Accompaniment

► Accompaniment

1

2

3

4


5

6

7

8

9



Model parameters

[Info](#)

Generative AI technique

Technique used to generate new data

Autoregressive

Generative algorithm

Architecture used to train the model

Convolutional neural network (CNN)

Model

Model used to generate inferences

Select a model

Advanced parameters

Maximum input notes to remove

Maximum percentage of input melody to remove

100

Between 0% to 100%

and play the notes on the keyboard.

New composition

Bar 04 Beat 2

Try playing on the beat of the metronome. An input melody played on the beat will result in a better generated composition.

1 2 3 4 5 6 7 8 9

Input melody

▶ Accompaniment

▶ Accompaniment

▶ Accompaniment

Live

Time signature 4/4

Metronome beats/min 100

Octave C4

Settings

W E R T Y U O P I J K L ; ' M , . / Z C B N

A S D F G H J K L ; ' M , . / Z C B N

Model parameters

Generative AI technique
Technique used to generate new data
Autoregressive

Generative algorithm
Architecture used to train the model
Convolutional neural network (CNN)

Model
Model used to generate inferences
Select a model

Advanced parameters

Maximum input notes to remove
Maximum percentage of input melody to remove
100
Between 0% to 100%

Maximum notes to add
Maximum number of notes added to the input melody
100
Between 0 and 100

Sampling iterations
Number of actions the model takes
100
Between 0 and 100

Creative risk
As risk increases, compositions will become more experimental
1

Mary Had a Little Lamb

♩ = 100


4/4

5

E D C D E E E D D D E G G




E D C D E E E D D E D C

Click the **stop** button to stop recording when you are done.




AWS DeepComposer > Music studio


New composition ▼

Bar 05 Beat 3   


Try playing on the beat of the metronome. An input melody played on the beat will result in a better generated composition.

1 2 3 4 5 6 7 8 9

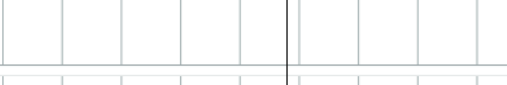
▶ Input melody 




▶ Accompaniment



▶ Accompaniment



▶ Accompaniment




● Live

Time signature
4/4

Metronome beats/min
100

Octave
C4 ▼

Settings 

W E R T Y U O P I J K L ; ' M , . / Z C B N

A S D F G H J K L ; ' M , . / Z C B N

Model parameters [Info](#)

Generative AI technique

Technique used to generate new data

Autoregressive ▼

Generative algorithm

Architecture used to train the model

Convolutional neural network (CNN)

Model

Model used to generate inferences

Select a model ▼

▼ Advanced parameters

Maximum input notes to remove

Maximum percentage of input melody to remove

100

Between 0% to 100%

Maximum notes to add

Maximum number of notes added to the input melody

100

Between 0 and 100

Sampling iterations

Number of actions the model takes

100

Between 0 and 100

Creative risk

Play the recorded music to verify the input. In case you don't like recorded music, you may start recording again by clicking *record*

Select **Generative Adversarial Networks** as the **Generative AI technique**.

Select **MuseGAN** as the **Generative Algorithm**.

Select a **Model**.

Click **Generate composition** to generate a composition and an AI generated composition will be created.

The screenshot shows the AWS DeepComposer Music studio interface. At the top, there's a header with "AWS DeepComposer" and "Music studio". Below this is a "New composition" dropdown menu and a "Bar 01 Beat 1" indicator with play, stop, and record buttons. A instruction says: "Choose **Generate composition** to create accompaniments based on the input melody."

The main workspace is divided into two columns. The left column contains a piano roll with a blue input melody and three empty accompaniment tracks. The right column contains the "Model parameters" section, which is highlighted with a purple border. This section includes:

- Generative AI technique:** "Generative adversarial netw..." (highlighted with a purple border).
- Generative algorithm:** "MuseGAN" (highlighted with a purple border).
- Model:** "Pop" (highlighted with a purple border).
- A blue box with the text: "GAN technique will perform inference and generate accompaniments based on the input melody. Info".
- An orange button labeled "Generate composition" (highlighted with a purple border).

Below the piano roll, there are controls for "Live" (a slider), "Time signature" (4/4), "Metronome beats/min" (100), "Octave" (C4), and "Settings" (a gear icon). At the bottom, there is a keyboard layout with letters A through N on the keys.

Click *play* to play the composition and enjoy the AI generated music.

Try experimenting with different genres or sample input melody.

Congratulations! You have learned how to use pre-trained models to generate new music!