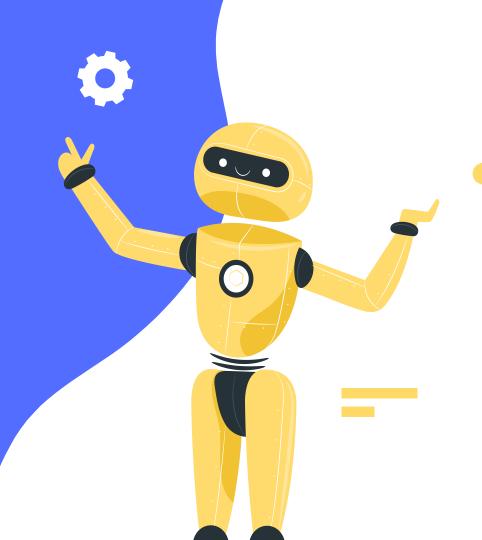
SHIMON ROBOTIC MUSICIAN

Presentation By Aalya Sharaf





## O1 SHIMON'S CAPABILITIES

What exactly does it include?

## 02 EXAMPLES OF MUSIC ROBOTS

Are there other musical robots? If so, how advanced are they compared to Shimon?



## O3 MACHINE LEARNING

The field of sound and music in machine learning

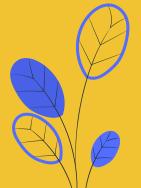
#### 04 CONCLUSION

Final reflection and comments



# 01

### SHIMON'S CAPABILITIES





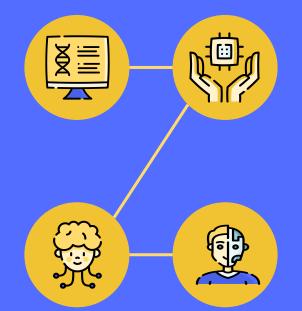
### WHO IS SHIMON?

Shimon is an autonomous marimba-playing robot developed by Georgia Tech's Robotic Musicianship Group.



#### **COLLABORATION**

Shimon is designed to create interactions with human players.



#### **COMPOSITION**

Shimon is able to create new music, based off the data being fed into it.

#### **ACCOMPANIMENT**

Shimon is able to improvise and create an accompaniment to an already live performer.

#### SINGING

Has an album dropping on Spotify, written and sung entirely by Shimon.









https://open.spotify.com/artist/75cqlibSgnNSH7F NKNCLRw?si=hPypX7\_ySpmeB6-F45ooAQ

#### **MUSIC CREATION**



Shimon's musical knowledge is drawn from training on huge datasets of lyrics

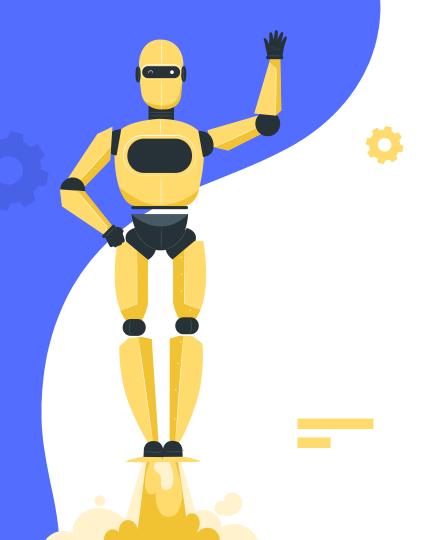


#### **HUMAN INTERACTION**

Shimon can perform a range of musical tasks from composing a full song by itself or just playing a part composed by a human.

# FUTURE DEVELOPMENTS?

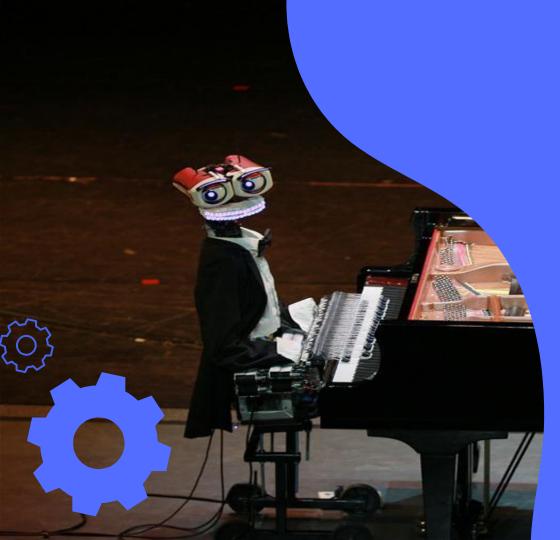
working on new capabilities that would allow Shimon to listen to, understand, and respond to lyrics in real time.





# O2 EXAMPLES OF OTHER MUSICAL ROBOTS





# TEOTRONICO: THE ROBOT PIANIST

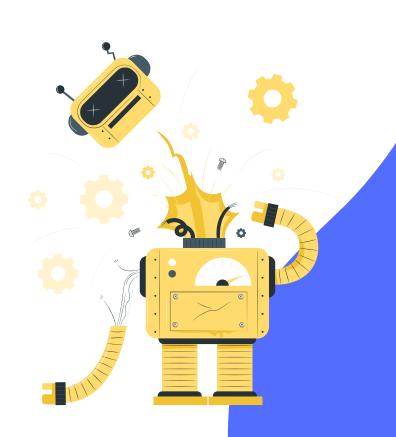
Created by Matteo Suzi, it is able to play the piano with remarkable dynamic control and articulation, a lot of it has to do with its 53 fingers.











# HOW DOES THIS COMPARE TO SHIMON?



#### SHIMON VS. OTHERS



#### **MORE ADVANCED**

Overall, Shimon covers a broader range of skills and is not limited in that sense.



#### MORE DEVELOPED

Has had a longer time for its developers to hone in on its skill set.



# THE ROLE OF MACHINE LEARNING





IN A WAY IS
SHIMON LIMITED?
DOES IT LACK
ORIGINALITY?

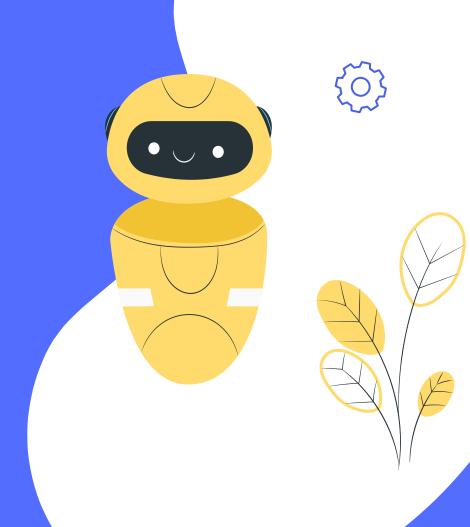




# 04 CONCLUSION



## THANK YOU!



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