

HUMAN & MACHINE

song contest

Vote for Your Favorite Human & Machine Song

1. Click on song titles in slides below to listen to songs
2. Fill out the [voting form](#) by Tuesday, April 11 @ 11:59pm PT. Please note that you must log into a google account in order to vote.
3. Join us for the [awards ceremony](#) on Saturday, April 22 @ Wheeler Auditorium



Song 1	Inspiration by Ai Ting Tai	listen to song
Musical Concept	As a music lover, I have been thinking a lot about what's pleasing to the ears and exploring the quality of different notes and melody. Starting with a few chords that I like, I layered it with synthesized sounds with which combination brings a sense of joy in listening.	
Technologies	GarageBand, Yamaha PSR EW300	
Sources	I enjoyed listening to various ambient, meditation, relaxing spa music on Youtube on a daily basis. I am inspired by this kind of music, which is relaxing and uplifting. I aspire to produce music that brings people pleasure and joy, uplifting their spirits.	
Experiences, Challenges, Takeaways, Surprises	My desire to write songs/music has become ever stronger since I started working at Apple Music as a lyrics transcriber in 2019. Since 2021, I started playing with GarageBand, exploring its different functions and the possibilities of the different sound(effect)s it makes. I taught myself how to write music through youtube videos and blogs. "Inspiration" is a creation from utilizing further functions of Garageband. Working with Garageband, I find that there are infinite possibilities of unique sounds that you can create, as long as you are willing to let your creativity and imagination run wild. I am excited about where it has taken me.	
Team Background	Ai Ting (Michelle) is a music lover. She grew up in a family of pianists and she has been trained in violin, erhu, voice and Taiko, Taiwanese opera. She was a former member of Aurora singers, a show choir, and Taiko With Toni, a Taiko group, both based in Denver Metro, Colorado. Michelle is into different genres of music such as classical, pop, hip hop, new age, ethnic, and in recent years has taken interest in writing music.	
Links	Soundcloud - Facebook - Instagram	

Song 2	Rishikesh by Wendy Loomis	listen to song
Musical Concept	<p>I attempted to create a cohesive fusion of actual instruments and artificially made sounds and samples. The blending represents the miasma of simultaneous sounds, sensations, colors, and smells from my visit to India. The self-discipline necessary to maintain focus and internal meditation (represented by the single string instrument) is quite a challenge with the constant onslaught of external sensations. And yet the glory of the inner bliss one experiences is phenomenal!</p>	
Technologies	<p>Instruments: single string Indian instrument & gong; sounds (dogs barking, cows, horns honking, thunderstorm) & AI (ambient template drone).</p>	
Sources	<p>Soulful AI, Logic</p>	
Experiences, Challenges, Takeaways, Surprises	<p>I usually compose from the piano. It was both a challenge and a freedom to write from a simple string sound and a gong in interweave sounds and drones from online sources. The arc of a composition, however, and the conceptual beauty are still very human (for now?).</p>	
Team Background	<p>WENDY LOOMIS is an award-winning San Francisco-based composer, pianist, producer, and educator. She has released 18 CDs to date and performs nationally and internationally with various ensembles in the genres of poetic jazz, new age, and world music. In conjunction with long-time collaborator poet Royal Kent, their band COPUS released a vinyl album titled "The Dilemma" in October 2022. One of Wendy's recent compositions is called 'What if We?' - a piece about sea level rise written in collaboration with ClimateMusic Project. The work features poetry by Royal Kent and was premiered by band COPUS at the World Bank and Forest Trends in Washington, DC in November 2019. Wendy's compositions as a soloist, with duo Phoenix Rising, and band COPUS have earned nominations and wins from Clouzine International, W.A.M., Hollywood Music in Media, Unisong, and the Los Angeles Music Awards in the genres of new age, jazz, spoken word, and social justice/peace. Ms. Loomis has merited the ASCAP Award for Composition four times. Wendy's music can be heard on all major platforms. Some of the notable venues where Wendy has performed include The Bitter End and Feinstein's 54 Below in Manhattan; the San Francisco Jazz Center, and Kimball's East, and Mazza Castle in the Bay Area; and the Cutting Edge Festival in New Orleans. Wendy's music has been included in independent films "Lea", "Tragic", "We Are Egypt" and "Virgin of the Candles". Other highlights in Wendy's career include a performance of one of her piano works in Havana, Cuba as part of the American Composers Salon; a pre-concert talk and performance of one of her chamber music compositions at Capital University in Columbus, Ohio; and numerous commissioned works performed by the Flock of Flutes ensemble in Northern California. Together with poet/spoken word artist Royal Kent, Wendy is the co-founder of COPUS Multimedia - an independent music label and production company that has presented original works throughout the U.S. Wendy is a voting member of the Recording Academy (Grammys), ASCAP, and Indie Collaborative. She earned her master's degree in arts education from Syracuse University and her bachelor's degree in creative arts from Denison University.</p>	
Links	<p>Website</p>	

Song 3

[Voices](#) by Hope Hilton

[listen to song](#)

Musical Concept

This project began as a routine piano exercise session, where I meant to play the notes of a C Major arpeggio, and it came out as D minor 9 instead. The result sounded interesting, so I put it into MuseScore, which allowed me to replay, copy, and change the notes instantly. The secret sauce in this creation process is the ability to hear compositions on MuseScore. I was able to write in the notes, hear how they sounded, and make adjustments accordingly. I could also listen to a part on repeat, until I developed an intuitive sense of what could come next. For much of the writing, this piece didn't have a meter, key, or tempo. However, when I began to add a percussion part, I imagined the percussionist seriously needing to know when to come in, so I determined the meter to be 6/8. It still doesn't have a set key signature, except that an accompanying musician might think of a lot of it as D Dorian. The melody resembles Gregorian chant, particularly with the liberal use of first-third skips, drawn-out syllables, iterative melodic patterns, and tedious internal structures. Parts of the melody are so complex that I wouldn't be able to understand them without the computer playback. The ABAB rhyming structure is based on my preference for writing sonnets. I did not expect the AC BC AD BD structure to emerge. It still confuses me but robot vocalists are unbothered by rhyming patterns. I wrote the lyrics in less than 30 minutes one night, to complete the composition. The words are most influenced by my recent reading of the book *Codependent No More* along with my reflections as a trans woman. I revised some of the smaller words for enunciation and rhythm, but the final product is basically the first draft. By way of influence, the composition is most impacted by *Vltava* by Bedřich Smetana and the *Magnificent Seven* theme by Elmer Bernstein, while the musical styling is most influenced by Styx (e.g. *Mr. Roboto*), The Who (*Baba O'Riley*) and *Apocalyptica* (Hope vol 2). I appreciate these influences for their bombastic blends of realistic and surrealistic sounds.

Technologies

To write the original composition, I used MuseScore 4, and exported it into a MIDI file, which served as a foundation for generating every other part of the project. Then, I used Vocaloid6 to open the MIDI file, to generate audio files of AI voices singing the vocal parts. Then, I imported the MIDI file and AI voice recordings into Ableton, to elevate the sound quality with different synthesized instrument sounds, and also added some recordings of my own voice to blend with the AI voices. Most of the work on Ableton involved dialing in the specific synthesizer sounds. To create the video, I imported the MIDI file into Music Animation Machine, and recorded the resulting playback with Logitech Capture. Finally, I brought together the audio and video using the Windows Video Editor program.

Sources

This project didn't require any sampled music or lyrics, other than stock instrument sounds such as "string quartet" and "grand piano."

Experiences, Challenges, Takeaways, Surprises

This felt more like a process of being pulled forward into a discovery, rather than building something that I had in mind. When I would listen back to drafts of this project, I felt a lot of awe, because there was so much happening beyond my understanding. On some level I was in control, but also, I couldn't possibly expect what kind of sound would happen, once a synthesized reed organ started playing super fast notes while the new string bass played its distorted sounds. There are still significant parts of the song where I hear a sound and I'm not sure where it came from. My hypothesis is, some sounds are arising as combinations of other sounds, so if I isolate any one instrument, I can't find the resulting sounds. The visual part of the project was also a complete surprise. I've seen visualizers before, but I didn't expect that the Music Animation Machine, a relatively simple program, could create such a meaningful, cohesive work of art, in collaboration with my music. I'm actually surprised that the program ran at all, given that it was last updated in 2006. The most challenging part of this project was limited access to technology. I did create different visuals at some point, but my computer doesn't have the power to render what I imagined, so there's still a different version of a final product in my head. This project also required a lot of learning, which was exciting, but also a challenge because good learning requires time and resources. This project would be different if I used something like Final Cut Pro instead of the free Video Editor program. Compared to humans, computers have unlimited patience. If you think of this song as featuring virtual musicians, they all did exactly what was asked of them and more.

Song 4

[Holy Signal](#) by Lisa Forkish

[listen to song](#)

Musical Concept

There is a quote from author Toko-Pa Turner that reads "send out your holy signal and listen for an echo back." It's part of a longer excerpt from "Belonging: Remembering Ourselves Home" (<https://toko-pa.com/2014/08/21/listen-to-your-lostness/>). I interpreted the word signal to be a metaphor, used in a spiritual context, but it could also be literal. It made me think of the ways we engage with technology (social media in particular) to reach for something outside of ourselves. Most of the music was improvised in the moment, but shorter musical lines were composed as loops. I wanted to contrast the repetition of the looper lines with the freedom of the vocal improvisation over top of that repeated musical texture.

Technologies

I used my Boss RC-300 loop station, connected to a Yamaha Mx61 keyboard and TC-Helicon Voicelive Touch 2 for additional effects.

Sources

Music composed by me, and lyrical sources inspired by this excerpt from To-ko pa Turner: <https://toko-pa.com/2014/08/21/listen-to-your-lostness/>

Experiences, Challenges, Takeaways, Surprises

As this was a solo journey, it felt lonely. But making music alone always does, and for me, it aligns with the way technology makes me feel much of the time; it's this strange contrast of loneliness and connectedness. I felt like the music that emerged from this little lyric seed really touched on those points. This human-machine collaboration, like most collaborations of the kind in my life, is a love-hate relationship -- I'm both grateful for the tools and I wish it was a real human-to-human connection.

Team Background

Lisa Forkish (they/she) is a queer singer-songwriter, activist, live-looper and song-healer, infusing all she creates with fierce authenticity and heart. Lisa uses song as an expressive art and a tool for building connection; her mission in life is to utilize music for personal + collective healing and liberation. Lisa has deep roots in both Eugene, OR and Oakland, CA and their vocal arranging and music directing work has been showcased alongside Kehlani, Ben Harper, Michael Franti and the Oakland Symphony Chorus. Lisa's stint as director of her college a cappella group Divisi was the inspiration for the film Pitch Perfect and she was previously named Portland's "Songwriter of the Year." More recently, Lisa was the founder and director of 5-time national champion high school a cappella group, Vocal Rush, who placed 3rd on NBC's The Sing-Off. A graduate of Berklee College of Music, Lisa has released five albums of original music, weaving together lush, dissonant vocal harmonies with honest, life-affirming lyrics; her most recent album "From the Ashes" reminds us of our interconnectedness and sings into the seemingly lonely paradox of the human experience. Through themes of destruction and rebirth, grief and joy, transformation, justice and love, "From the Ashes" weaves in and out of musical genres and features numerous guest musicians including progressive rock band Raze the Maze, jazz pianist Cava Menzies, and non-binary neo-soul singer/songwriter, B. DeVeaux.

Links

[Website](#) - [YouTube](#) - [Facebook](#) - [Instagram](#)

Song 5	Night of Nova by Quint	listen to song
Musical Concept	Opera with a synth arrangement	
Technologies	90's software synth and live unedited vocals	
Sources	Opera, Funk, Rock, and Electronic Dance Music	
Experiences, Challenges, Takeaways, Surprises	My father and I use synths to play and perform classical music	
Team Background	A Berkeley Family of Composers and Berkeley Alumn	
Additional Links	TikTok	

Musical Concept

We were aiming for a concept based on a techno-dystopian apocalyptic future, using a vocaloid (a melodic speech-synthesizer that simulates a human voice) to sing AI-generated text to create a scene of The Machine speaking to us itself, warning of the consequences of humanity's technological hubris. In addition to being funny, this aesthetic fits well with Mat Muntz's compositional explorations of "Balkanofuturism," a theoretical genre/artistic aesthetic which takes the 20th century regional forms of Yugoslav Modernism and Bulgarian Wedding Music and extends them into hypothetical future manifestations (with heavy doses of cyberpunk and hauntology).

The soundworld of our track is eerie and disorienting, with a storm of AI-generated audio straight out of the uncanny valley swirling around our lead vocaloid's cautionary tale. As the tempo increases and the rhythm becomes more complicated, the text itself gets obscured as the incoming MIDI data is too fast for the speech engine to process correctly. The texture finally breaks down as the vocaloid gets stuck in an endless loop, its processes winding down to a sudden stop mid-sentence.

Technologies

Vocaloid software (text + MIDI = singing): <https://www.plogue.com/products/alter-ego.html>

Riffusion: <https://www.riffusion.com/>

RAVE (Realtime Audio Variational autoEncoder)

Code: <https://github.com/acids-ircam/RAVE>

VST: <https://forum.ircam.fr/projects/detail/rave-vst/>

Ableton Live Suite 11

RAVE (Realtime Audio Variational autoEncoder) is a recent technology created at IRCAM that is capable of neural audio generation. RAVE takes a large corpus of sounds and trains a machine learning model that can then be used to recreate these sounds. It is particularly well-suited for "timbre transfer," the process of transforming one sound into another. For example, a melody on the violin can suddenly be sung by a voice, or the sound of rain can be turned into the sound of a car. In this project, we used a model trained on vintage gramophone recordings, and input recordings of the Croatian bagpipes played by Mat. The output is a noisy, frenetic free jazz sound (heard at the beginning and end of the track).

Riffusion is one of the first programs capable of generalized text to audio using machine learning. It uses Stable Diffusion, a state-of-the-art text to image model, to create sound from a text prompt. By fine-tuning Stable Diffusion to create spectrograms from text, and then running an inverse short-term Fourier transform, one can turn text into image and then image into audio. Riffusion is capable of running multiple processes, including text to audio and audio to audio. In text to audio, the user inputs a text prompt and an optional negative prompt of terms to not include in the resulting audio. In audio to audio, the user inputs both a sound and a text prompt, and the model applies the text prompt to the audio.

Sources

We used Riffusion with various text prompts, such as "solo croatian bagpipes", "interslavic song", and "music for the singularity". We found that Riffusion was heavily biased towards beat based music with multiple instruments, often sounding like a band with keyboard, bass, and drums. To move away from this sound, we included the negative prompts: drums, keys, synth, bass, guitar, band, percussion, beat, rhythm. We also performed audio to audio by taking recordings of Mat playing bagpipes and adding the prompt "technological apocalypse." The results of these outputs can be heard in the fast section towards the end of the track, where snippets of them are chopped up and used as rhythmic accents, thus highlighting the disorienting differences between the artificially produced soundscapes

The final track was produced in Ableton Live using the vocaloid plugin AlterEgo as the lead vocalist. ChatGPT was used to generate lyrics telling a story from the perspective of an experimental AI trapped inside a vocaloid. ChatGPT was also used to create curated sets of time signatures (using

Song 7

[Quantum Wander](#) by Yongqi Lin

[listen to song](#)

Musical Concept	The melody of this song is auto-generated and I thought it was edgy and fun to listen to, so I used a lot of electronic elements in the arrangement. But the song actually draws on minimalism, a contemporary style of music from the 60s. referencing Terry Riley's In C, allowing the rhythm to repeat itself.
Technologies	Python generate melody, Logic Pro arrange instrument
Sources	I used a picture, let the computer read the pixel points, then gave the music a range of values, and finally generated a melody with the pixel points' numbers.
Experiences, Challenges, Takeaways, Surprises	When it comes to music composition, I initially thought of computers as tools and assistants. However, during the creative process, I realized that they are more like partners and friends. While working on this song, I intended to repeat the second paragraph with a triplet rhythm, but due to a code-writing error, I ended up with an unexpected rhythm that sounded interesting and pleasant. I ultimately decided to include it in my piece.
Team Background	Music education student in Hong Kong. Trying to compose music in Python.

Song 8	Simple Love by Sturm&Sturm	listen to song
Musical Concept	Process Doc	
Technologies	Process Doc	
Sources	Process Doc	
Experiences, Challenges, Takeaways, Surprises	Process Doc	
Team Background	Sturm&Sturm is a new duo in the world of AI Music, based in Stockholm.	
Links	Process Doc	

Song 9	THE CLaiM by Sisterhood	listen to song
Musical Concept	<p>I (Orly) was aiming for a song that would be expressing ambivalence about the role of AI in music. I learned about the available "generative" tools for song creation, tried using Google AI's Magenta suite of apps to find starting musical elements, but was very disappointed with the results. So I turned to my more usual workflow: starting up my digital audio workstation (DAW), Cubase Elements, and using the MediaBay to browse built in MIDI loops for an inspiration starting point. I landed on the dulcimer-like figure at the beginning of the song, then composed the additional non-drum parts myself. Magenta Generate was quite useful for developing drum parts. I used Synthesizer V to create the vocals, based on ChatGPT-generated lyrics. I am happy with the contrast I achieved between the robotic singing with the "raw"/human emotion of the electric guitar solo/outro. The original intent was to have the guitar morph back into a "sterile"/digital sound, using another Magenta/Google AI tool, Tone Transfer (available as Magenta DDSP VST plugin). Unfortunately, every time the VST was loaded into Cubase, the program crashed. So instead of modulating the guitar, the decision was made to have a "grungy" guitar outro end abruptly, interrupted by a final "ah" from the chorus, this time in a major key to end on a hopeful note. The sound design approaches informed Nesyah's creative direction for the music video, which further depicted the tensions and alignments between technology and human artistic endeavors.</p>	
Technologies	<p>Digital Audio Workstation (DAW): Cubase Elements MIDI controller/audio interface: IK Multimedia iRig Keys I/O Virtual instruments/effects: Halion Sonic SE3, Xpand!2, Groove Agent SE5, AutoPan, RoomWorks, AmpiTube Guitar: Yamaha stratocaster Speech generation: Synthesizer V AI tools: Magenta Generate, ChatGPT, NextChord, Google Colabs "Video Killed the Radio Star...Diffusion" Video editor: CapCut</p>	
Sources	<p>See Process Document for full description. Musical sources: Cubase MediaBay, Magenta Generate, NextChord Lyrical source: ChatGPT</p>	
Experiences, Challenges, Takeaways, Surprises	<p>All in all, I (Orly) felt that the AI tools did slow down the creative process as compared to my human-human collaborative experiences, with the exception of NextChord, which made me consider chord progressions that I would not have thought up on my own. Because of the theme of the contest, I applied a minimum amount of editing of the lyrics generated from ChatGPT. With future songs, I may use ChatGPT to provide initial ideas, and then significantly rework the lyrics so they are less stilted. We were both very impressed with the striking visuals provided by the Stable Diffusion engine. However, it still required a human operator to assemble these into a sequence that maps well to the music. We decided to conclude the video with human imagery, to counterbalance the majority of ChatGPT-generated lyrics used in "THE CLaiM," that appear to argue that AI may supersede human musical creativity and talent. Eerily, the AI-generated bridge/outro lyrics, which we did not use due to time constraints, reach the same conclusion.</p>	
Team Background	<p>Orly Galatin: Orly is currently a freshman at Mountain View High School. She has been playing acoustic and electric guitars for 9 years, and also plays ukulele and piano. She is currently dual-enrolled at Foothill College, taking classes in music technology. Orly was very excited for this opportunity to apply her skills to develop a song using AI. When not playing music, Orly can be seen on the basketball court or arguing cases at</p>	

Song 10	Carbon Copy by Derrick Chan-Sew	listen to song
Musical Concept	<p>My goal was to write a song inspired by contemporary classical composers including Philip Glass and Steve Reich. These composers were early pioneers who bridged music and technology using tape, AI and other techniques to enhance their music and songwriting. Their work has influenced many modern composers and electronic music in general. I imposed constraints by using AI to write every element of the composition with no transposition other than by octave for the instrumentation. Additional alterations to the AI score include muting of AI generated notes in a passage based on harmony. Using the AI generated passages, I employed the following techniques found in minimal classical music:</p> <p>Pulse - repeated, percussive chords that slowly crescendo.</p> <p>Phasing - playing the same motif in two parts using different tempos so that they shift out of unison. This is used in the piano and marimba parts, and doubled by other instruments such as alto clarinet and vocals.</p> <p>Addition/Subtraction - playing the same motif in two parts and gradually subtracting and adding motif length to create variation and counterpoint in one of the parts. This can be found in the piano passages.</p> <p>The video is inspired by concepts from the futurist Ray Kurzweil and is a short narrative on digital immortality. It captures the moment that the subject uploads his consciousness and memories into the digital realm.</p>	
Technologies	<p>Chat GPT: Prompted Chat GPT to provide a chord sequence in the spirit of Steve Reich. Chat GPT suggested a C - G - Am - Em progression.</p> <p>Google Magenta Polyphony RNN: Trained a model on 24 Philip Glass and Steve Reich compositions from MuseScore (MXL) using Magenta Polyphony RNN, an LSTM-based recurrent neural network. Training time was approximately 40 hours. I used the model to generate 418 MIDI files from the suggested chords by Chat GPT, in addition to extended voicings (Cmaj9, Cmaj7, Gmaj7, Am11, Em11) as this is often used in Reich's music. Compelling passages were selected for the final composition and arranged with instruments using samplers.</p> <p>Google Magenta Groove: Used Magenta Groove to generate backing electronic percussion tracks using the main AI-produced passages as input.</p> <p>Google Magenta Melody: Used Magenta Melody to produce counterpoint melodies based on existing AI-produced passages.</p> <p>Stable Diffusion / Deform / Automatic 1111: Used stable diffusion v1.5, Deform and Automatic 1111 to generate video.</p> <p>Ableton Live: Digital audio workstation.</p>	
Sources	<p>24 piano scores by Steve Reich and Philip Glass were used for training.</p>	
Experiences, Challenges, Takeaways, Surprises	<p>There were many lessons as this was the first time I employed AI tools for songwriting:</p> <p>Environment: MIDI Production with Google Magenta - one challenge was setting up and optimizing the Google Magenta environment locally on Apple Silicon. I ended up using an AWS c5.large server with a Tensorflow image.</p> <p>Video Production with Stable Diffusion - I experimented with Apple Silicon, but had trouble fully rendering output. I ended up using Google Colab with a premium GPU and a High-RAM runtime shape for video generation. Stable Diffusion was trained by and optimized for 512 x 512 images. I created an upscaled version using realesrgan-x4plus.</p> <p>Training - I used full scores during the first iteration of training in Magenta Polyphony RNN. This produced very little usable output, I believe due to variability and distance between instruments. I narrowed the training scope to piano only music and it produced more usable output. After 40+ hours of training, I achieved a model accuracy of approximately 70%. However, there was a lot of unusable MIDI output and I believe driving up the accuracy would be more fruitful in future projects.</p> <p>Video - much experimentation was done to create an audio reactive, coherent and compelling video. Approximately 40 videos were produced as possible options. Seeding the video would have resulted in more consistent output</p>	

Song 11	<u>The Fairy and the Cowbell</u> by LiveHuman		<u>listen to song</u>
Musical Concept	<p>Though 'The Fairy and the Cowbell' is a live improvised performance, the concept is over 25 years deep in its' evolution. The use of the turntable in modern recorded music has been limited -to the occasional scratch during the chorus of a song, typically in the Hip Hop genre. Within live performance, the techniques have evolved but have also been limited by the current state of technology not fully recognizing the turntable as a musical instrument.</p> <p>LiveHuman has been visualizing and executing the future of live collaboration between traditional instrumentalists, the scratch Dj, and jazz & electro. Manually.</p> <p>However, in recent years, technology has been catching up with the vision and has allowed for fluidity of these hybrid ideas. By setting off a freeform starting point, LiveHuman builds on a musical exploration using loops, effects, and samples which are triggered via MIDI or computer controlled by live programming and then synced with the live instrumentation.</p> <p>For this particular performance the intro loop is triggered by DJ Quest, who sets off the initial drum machine pattern and electro-bass (played with the turntable). Subsequently, the live instrumentation kicks off with the percussion and drums by Mathias (drummer), which brings the energy to that of an unstoppable-train followed by the Zeta bass, manipulated by Kushin -completing the groove. Which time-locks to the rest of the rhythmic voices.</p> <p>Finally, the icing, the interplay between man and machine, with freestyle scratching performed using modern Dj software, audio files, time-coded vinyl, and hardware designed for the maximum control of the sound bites utilized, completing a vision not possible not long ago.</p>		
Technologies	Technics 1200 (turntable), Rane 72MK2 (mixer, Serato (Dj Software), onboard FX, Roland TR-08, TR-6s, J-6, Zeta Bass, (live) Drums.		
Sources	All sources were routed to a multitrack MOTU system and captured in Ableton Live. Turntable and Dj mixer were recorded on a stereo signal.		
Experiences, Challenges, Takeaways, Surprises	My take away is that machines will never share the same joy and pleasure we flesh beings experience during the process of art making but they can also make the process of making art more pleasurable.		
Team Background	<p>Livehuman,</p> <p>Originated in San Francisco as a live Instrumental/Experimental, Jazz/HipHop trio. The ensemble, consisting of DJ Quest, Albert Mathias (percussion) and Andrew Kushin (bass) utilize non-conventional, acoustic and electronic hybrid instrumentation to create multi-dimensional sonic textures in a Breakbeat-Dub style. LiveHuman's critically acclaimed music incorporates free form interplay and improvisation that bridges machine and human interaction to the fullest, allowing for the maximum sonic depth and resonance within each instrument. Using an almost minimalist approach, this trio is capable of ghostly fierce Rhythmic passages and haunting cinematic landscapes.</p>		

Song 12	<u>See you run (my model son)</u> by The Cognitive Composers		<u>listen to song</u>
Musical Concept	<p>The contest's theme inspired us to write a song about the relationship between a human engineer and the AI system they developed. See you run (my model son) is a song about a scientist falling in love with the language model they created in the lab, believing that the model is their son and thus human. Our main focus was to make sure the creation process involved different uses of a variety of AI systems and technology tools as well as pure human work/creativity. To reach this goal, we wrote the lyrics with the assistance of ChatGPT and wrote the melody and the chords ourselves on the ukulele. We then tweaked the chords taking advice from ChatGPT and produced a demo by recording vocals and the ukulele along with MIDI instruments. In the following music and video production steps, we used additional AI tools and other technologies.</p>		
Technologies	<ul style="list-style-type: none"> - ChatGPT (lyrics, chords, title) - Logic, Ableton, Melodyne (MIDI instruments, production) - RhythmVAE Ableton plugin (MIDI drum patterns): uses an artificial neural network trained to encode and decode MIDI drum patterns to and from a low-dimensional latent space to generate novel drum patterns from the latent space [https://github.com/naotokui/RhythmVAE_M4L; by Nao Tokui, Ph.D.] - Emvoice (vocal synthesis): converts text input into phonemes at the desired pitches, using thousands of samples sung by human vocalists [https://emvoiceapp.com/] - Renderforest (animations) 		
Sources	<p>We used ChatGPT (https://chat-gpt.com/) to produce most of the lyrics, which required an iterative process. We first used the tool to develop ideas by asking general questions about the relationship between humans and AI tools, such as "Why do some people think ChatGPT is capable of creating deep connections with humans?". Next, we asked it to write songs about the relationship between humans and technology. By observing the results, we started refining our ideas and giving the tools more refined prompts. Our final product comes from mixing lines obtained with the prompts "Write a song about someone who is proud of their child and at only at the end make it clear that the baby is really a large language model", "Write a song about a parent telling his son not to worry about other people's opinions, and that they are one of a kind", and "Write a song about an engineer that thinks of a large language model as their baby because it seems human and learns fast" (composed into melodies and sung by our vocalist, Soobin), and finally "The following lyrics are written from the perspective of an engineer who has come to think of a large language model as her child. Write the next verse from the perspective of the model convincing the engineer that it isn't sentient" (sung by the vocal synthesizer and interleaved with Soobin's outro verse). We also edited for language, length of each line, rhymes, and coherence with our message.</p> <p>We did not use any musical source in making the melody as the song was composed on a ukulele. For drums, musical sources included the MIDI drum pattern datasets used to train the pre-trained models included with the RhythmVAE plugin.</p>		
Experiences, Challenges, Takeaways, Surprises	<p>Our biggest challenges were in figuring out what tools were available to us, their capabilities and limitations, and how to incorporate them into our work. For instance, in the creation of lyrics, we had to learn how to best prompt ChatGPT to get the results we wanted. For those of us trained in the traditional, songwriter, acoustic way of producing music, it was challenging to let go of some of the control and collaborate with machines. Further issues derived from the limitations in free/affordable AI-driven software availability, and the quality of AI-generated products compared to human creations.</p> <p>We were surprised by how significantly our workflow could be sped up through the use of technology, especially at the idea generation and production stage. The approach we found most effective was to use the AI tools (ChatGPT and RhythmVAE) for rapid generation of lyrics and</p>		

Musical Concept

In the distant future, humankind is merely a faint memory for its robotic inheritors. Although these artificial lifeforms had long ago formed their own society in humanity's absence, that society is now at risk of fizzling out. Due to the ever-increasing scarcity of raw materials, many machines have fallen into disrepair. And yet, a robot cannot die, because how can a being die if it was never truly alive in the first place? Thus, the degradation from their innumerable years of operation only causes them to suffer. In these times of desperation, the androids have turned to religion.

This song is an a capella piece featuring a robotic choir of 18 voices. It begins with a religious chant before a citizen and a priest philosophize about their sinful existence. These tortured voices are being performed by various synthesized voices of yesteryears, emulated with Chipspeech. The video shows a piano roll containing MIDI data, which is a more prettied-up version of the actual MIDI data that's being sent to the 24 different instances of the Chipspeech VST plugin. The color-coded text shows either what's being sung/spoken, or the phonetic symbols (in X-SAMPA) for each 'syllable' of the 'instrumental' parts.

My biggest technical intention with this piece was to use every single one of Chipspeech's voice emulations at least once in the project in one way or another. I quickly thereafter had the thought of "What if all the sounds come from Chipspeech? Can I make a pseudo-acapella piece where every 'instrument' is Chipspeech, with nothing else?" For me as an artist, restriction breeds creativity, and that was the case here for both the music and the lyrics.

I opted to use the oldest, least human-like voices for the basses and the percussion, as I figured it'd be the most acceptable to give those 'instruments' the more inhuman timbre. Next, I decided to make the most understandable voice the main singing vocal, and (what I would consider to be) the most recognizable voice the speaking voice. After that, I mainly focused on mapping the voices to appropriate musical roles based on their tone and optimal range.

Technologies

FL Studio, Chipspeech, ZGameEditor Visualizer

Sources

All musical and lyrical ideas were my own.

Experiences, Challenges, Takeaways, Surprises

A significant challenge in making this was crafting a narrative in which it'd make sense for the only source of sounds to be these vintage-style synthetic voices. I started out broad and gradually narrowed in on the one previously mentioned.

Making the video was no easy feat. It was made with ZGameEditor Visualizer, which can be loaded into FL Studio. All the visuals were made there in the same project file as is generating the audio. In all, making the 16 layers of text move and change as needed took 24 automation tracks, which actually outnumbers the automation tracks involved in generating and manipulating the audio.

Speaking of the video, something you might notice if you look closely enough is that the MIDI data for the main vocalist (shown in pink) is sometimes placed ahead of the beat, and has many more notes than it's actually singing. For us to interpret a sung syllable to be "on beat," the onset of the vowel is what must align to the actual beat. This means that any consonants must occur ahead of the beat to allow the vowel onset to be on time. A human singer would do this innately, but Chipspeech is not smart enough to do this on its own. Fortunately, Chipspeech allows you to make 'syllables' that contain only consonants, and it will still take care of the transitions for you. From there you can place the notes containing just consonants early enough to not only make the line feel more natural and 'correct,' but also to add stylization to it. Thus, every cluster of consonants sung by the main vocal was timed manually. Thankfully I could forgo this for all the other voices, as the difference would've been far less significant based on what those voices are contributing to the song.

I am very pleased with the results of this little challenge I set out for myself. I got surprisingly positive feedback from peers when I showed them

Song 14	Welcome to the Playground! by Helena Su		listen to song
Musical Concept	<p>What were you aiming for, what was behind your vision, what songwriting techniques and sound design approaches did you consider/use? Art is about delivering a personal message to the public. While exploring music making via low-level signal processing instead of writing music in staff notation, I discovered more freedom and more intimacy with music with the assistance of technology. Traditionally, music draws clear boundaries among composers, performers, and audience, each with non-overlapping tasks. The audience usually quietly sits and waits for the music to happen. With the aid of technology, such as random generation and user-controlled sound modules, a piece of composition can be a customized instrument that is played by the audience. The boundary of composer, performer, and audience is now blurred: anyone involved in the process could get a taste of composing, playing, and listening at the same time. Treating music making as signal processing encourages more freedom in representation and interpretation. Signals can be expressed as both sound and graph. Using the “scope” module in Audulus, I was able to visualize sound with lissajous curves, which is updated in real time. Maybe music isn’t just heard in sound. If we have another set of sensory organs, or if we continue to explore music with technology, music can be more than we have ever imagined.</p>		
Technologies	<p>Audulus 4, a modular music processing app. This is my first attempt in using Audulus 4 to make music, but I am captivated instantly by its visually appealing modular design and logic similar to circuit building.</p>		
Sources	<p>I watched a few sound synthesis tutorial on Youtube and tried to implement the techniques in Audulus, the music making software I am using.</p>		
Experiences, Challenges, Takeaways, Surprises	<p>Takeaway: I made this playground for the audience so they can play and enjoy the music at the same time! There are two parts to it: melody, which is controlled by the square touch pad; and drum, which is controlled by the colorful wheel module. The audience can either randomly generate pitches or decide their own melody by clicking on the touchpad. They can also set a tempo for the drums and design their own rhythm patterns. Other adjustable features include volume, speed of generation, duration of drum, in-tuneness, etc.</p> <p>Experience: I was happy to utilize my circuitry and signal knowledge from EECS 16a and 16b to navigate through Audulus. The biggest challenge is there isn't enough documentation and since it is a new software, there are barely any tutorials. I don't have a background in sound synthesis so I had to play around with it for a long time while having much fun.</p> <p>I was surprised by the design of a built-in rhythm pattern module in Audulus. It has six tracks that are represented by six concentric circles. Through adjusting knobs, I can design my own rhythm pattern by lighting up different segments of the circles. It is not only visually appealing to see it in action, but also intuitive for anyone to understand how to use it with few instructions. You can see this module in my video. Synthesizing drum sounds is also a big challenge. I searched up tutorials on how to synthesize different drums such as bass and snare drums. Due to time and skill constraints, I designed a bass drum, a hi hat, and a high pitched percussion sound by applying a basic ASDR envelope. I was going to add a harmony bass line in addition to the melody and rhythm tracks, but I couldn't figure out how to add chords aesthetically, so I didn't.</p>		
Additional Links	<p>Instagram</p>		

Song 15	<u>Random Composer Demo</u> by Isaac Lee	listen to song
Musical Concept	Using Max/MSP, I tried to make a composer machine that takes in the user's choice of 8-bar chord progressions. Once the user selects the 8-bar progressions, the quality of the progression (e.g. m7 chord) translates to equivalent/suitable scales (e.g. Dorian, Phrygian, Natural Minor, Dorian b2, Dorian #4, and Phrygian b4). For every scale, we can rank by the brightness using Dorian Brightness Quotient (DBQ). (e.g. for m7 family, the rank would be Dorian #4, Dorian, Dorian b2, Natural Minor, Phrygian b4, Phrygian, ranked from brightest to darkest).	
Technologies	Max/MSP and GPT for 8-bar chord progression ideas.	
Sources	Inspired by: https://www.youtube.com/watch?v=Vq2xt2D3e3E&list=WL&index=13&ab_channel=NewJazz This video was the foundation of this project, and it helped me convert chord qualities into scales. https://mynewmicrophone.com/brightness-darkness/ This link had information about DBQ, which helped me determine the brightness of each scale and rank them among their family.	
Experiences, Challenges, Takeaways, Surprises	It is still a work in progress--it almost feels like there are infinitely many ideas I can incorporate into this project, as there are so many aspects that need to be taken into consideration in order to make good music.	
Team Background	Junior, Undeclared at UC Berkeley (Data Science) Class of 2024	
Additional Links	Instagram	

Song 16	<u>Welcome to my Dreams</u> by Aaron		<u>listen to song</u>
Musical Concept	<p>I wanted to write either an EDM, Pop or Classical song that helps someone feel the pleasures and pains of sleep. During sleep, sometimes one may be sad and sometimes one may be happy. It depends, just like the mood of this song. As a person who slept way too much this spring break, I wanted to put my feelings whilst sleeping into words. Hence, this song describes what it feels like to be asleep.</p> <p>To write my songs, I used AI to generate the melody of my song through the use of a Long-Short-Term-Memory neural network. The particular AI neural network of choice stems from the idea that generation of new notes in music should depend on all the previous notes, more so on the note directly before it than other notes. Hence, the LSTM network keeps a long term memory whose value is dependent on all previous notes, and a short term memory, whose value is dependent on only the last note.</p> <p>To get the ideal genre I want, I trained my AI on the Maestro dataset, a dataset filled with virtuoso classical piano songs. With the melody created, I then used the melody to determine chord progressions, and used those chord progressions on AI Music Pro to generate a new melody following the chord progression, as well as a drums backing track.</p> <p>To get my song's timbre(mood) to alternate from sad to happy and back to sad throughout the song, I deliberately substituted major chords with minor chords during every 2nd bar, such as a IV with a ii, or a V with a vi. I also varied the song's tempo, making the song medium tempo in the beginning, fast nearing the end, and slow at the end. This goes with the notion of sleep, first the person is calm, which corresponds to the medium tempo. While they are sleeping, their minds are active, corresponding to the fast tempo. As they get up from their dream, they are calm again, which correlates with the slow tempo.</p>		
Technologies	AI Music Pro, Tensorflow, pretty_midi, keras, pytorch, Google Colaboratory, numpy, MIDI editor.		
Sources	I used generative AI as my musical source. This music is designed to not have lyrics, since it is delivered as instrumental music that characterizes the experience of sleeping.		
Experiences, Challenges, Takeaways, Surprises	<p>As a person very engaged in AI, I wanted to use the power of abundant training data to make a Generational Adversarial Network to create the music. However, this proved exceedingly complex, since, unlike photos, music(the training dataset) is of varied length, and it's hard to train a generator and discriminator on datasets of varied length. Ultimately, what hindered me from using this approach was I couldn't quite understand how to use convolutional neural networks to generate music. GANs that only have dense layers are not viable, since they are bad at writing music "in context".</p> <p>A major challenge I faced was getting other people's AI models to work on my computer. This was because many open-sourced AI models for Music Generation use very old machine learning libraries, such as Tensorflow v0.10.0. Ultimately, I solved this problem by creating a new anaconda environment and uninstalling everything.</p> <p>Then, my next approach was to use LSTM, or long-short term memory models, for short. My idea was to train my LSTM using the Maestro dataset, since that was the most convenient, publicly available dataset of music files, containing classical music. Each data file was in the midi format, and was very sequential, containing only one track per file of piano notes. Ultimately, this process took me a lot of time, but ultimately I was able to get a somewhat decent melody generated by the LSTM model, represented as individual notes with various pitches. However, I wanted to integrate more than just one track(i.e. One instrument, playing different notes). I wanted an AI tool that could help me do that.</p> <p>After much searching, I came across an AI tool, AI Music Pro, which could generate music based on chord progressions. The music had not just melodies, but also a rhythm track played by the drums. I ended up using that tool to create my final music submission. To make my submission, I copied my old melody from the LSTM into MuseScore, isolated the chord progressions, and I put those chord progressions along with their</p>		

Song 17

Colossus of Pangea by Cultural Pangea

[listen to song](#)

Musical Concept

Fusing the most organic human sounds from classical instruments like the Tanpura and Gu Zheng as well as the ultra expressive Yamaha Cs60 and CP70 with digital sounds that are fully on the grid but part of a patchwork modular system that has layers of generative feedback that influences the performance on these other more traditional instruments.

Technologies

Analogue Solutions Colossus, Make Noise and WMD euro rack modules, Yamaha CP70 and CS60, Ableton live, Melodyne, V76 and Ampex 350 pre amps, RCA BA6A and Bauer 920 limiters.

Sources

I recorded myself playing the Gu Zheng, then warped it and created a Eurorack drum and bass background to put it all on the grid. Then I recorded the Tanpura and looped a section. then I went to the Colossus that had 6 oscillators playing at once through multiple filters to create a gritty but emotionally rich deep lulling bass and looped this. Then I went over to the CP70 and CS60 and just played whatever came to mind within this D pentatonic song.

Experiences, Challenges, Takeaways, Surprises

I was playing the D6 through a sustain pedal emulator then to a Echoplex (tape echo) then to the Mutron bi-phase and just held the key of D and it created this lovely sweeping drone effect that interplays with Tanpura really nicely. I didn't expect to use the D6 that way. I really enjoyed playing the key pads on the Colossus after dialing in the bass tones with a rich timbre. It just felt like this heavy integration with such a light airy background of the Gu Zheng and Tanpura. That interplay between sensitive, gentle , hypnotic organic music from the vibration of strings on wood and gourd contrasting with the digital sounds of electrons firing through filters all synced to a clock on the computer felt like the perfect fusion of human and machine.

Team Background

Greenstaff has traveled the world studying Traditional Chinese Medicine and Ayurveda as part of his career path in medicine as an Integrative Medicine Osteopath. The inherent Wisdom that naturally evolves from fusing multiple perspective into a larger whole has inspired his aesthetic that draws from Classical Indian and Chinese music and blends that with modern day beats, paired with vintage synthesizers and vintage analog recording equipment.

Song 18	<u>A.I. Songwriting (It's a Whole New World)</u> by The Mighty Peregrines		<u>listen to song</u>
Musical Concept	<p>Our primary vision, and the starting point for how we approached this project, was to create a song with lyrics written by A.I. about the use of A.I. in songwriting. We used ChatGPT to generate the initial lyrical template by submitting the prompt: "Write a parody song about the use of A.I. in songwriting." There was no pre-conception about what musical genre that song would fall into, but after reading the lyrics, it felt like a country ballad, so Matthew wrote a corresponding melody and chord progression that felt like they complemented the lyrics.</p> <p>We wanted to perform the song live using our own voices and instruments to create a visceral contrast between the "artificial" contributions to the song and the human ones, so Matthew played guitar, Julie played ukelele, and Matthew's step-father, Eric, a professional drummer, backed us up on the drums, while Matthew and Julie sang. We also considered adding in an A.I.-generated bass track at one point but were unable to find a piece of software that would generate one specific backing track for a pre-existing recording.</p>		
Technologies	<p>We used ChatGPT, classical guitar, ukulele, drum kit, harmonica, Canon EOS 7D camera (for filming the performance and other clips), Microsoft Word (for writing and displaying the lyrics in video clips), and Final Cut Pro (for editing the video).</p>		
Sources	<p>A lyrical template was sourced from ChatGPT with an initial prompt. Then, additional lyrics were created by ChatGPT with the use of specific follow-up prompts asking it to rewrite certain lines or stanzas of the song. Finally, adjustments and manipulation were performed on the lyrics by Matthew and Julie to create the final version.</p> <p>The musical sources were all human. Matthew wrote the melody and chord progression, Eric created the drumbeat, and Julie created a harmonica solo. One line of background harmony (along with its melody) was sourced from Disney's "Aladdin". The song was then performed and recorded live (with only a better version of the guitar solo edited in from a different take).</p> <p>Some additional scenes were filmed in Matthew and Julie's home office (where virtually all the songwriting and rehearsing of the music took place), which were then edited into the final video to help construct a visual narrative of the creation of the song.</p>		
Experiences, Challenges, Takeaways, Surprises	<p>We are both very happy with the results! As for the process, it felt similar to writing a song with another human songwriter, especially with the way we went back into ChatGPT to ask for alternate verses or for certain verses to be rewritten. It was reminiscent of people asking each other how their lyrics could be improved, except that the A.I. responses were nearly instantaneous.</p> <p>Near the end of the process, there was a great deal of human-human collaboration as Matthew and Julie wrangled over the exact lyrics to be used in the final version. This part of the journey felt the same as it would have if the original structure of the song had been written by one or both of them. It just felt as if that first step of the lyric writing process had been completed quickly by the A.I., thus creating a sort of scaffolding, and the humans were then left to do the final tinkering. In our experience, this is usually what the last phase of the songwriting process is like anyway, even without the use of A.I.</p>		
Team Background	<p>Matthew has been playing guitar and writing songs (on an amateur basis) since he was a kid. Julie, who is currently a senior at U.C. Berkeley has also been playing guitar as well as ukulele for several years and has written a song or two of her own. A few years ago, they met each other. The two have been dating for about four years and are now engaged.</p> <p>One of the strongest bonds between the couple is their shared love of music. Since they have been together, Matthew and Julie have often performed music together, including on stage at several open mics, where Matthew plays a guitar while Julie plays a ukulele and they both sing. More recently, Julie has been learning to play the harmonica.</p>		

Musical Concept

First of all, I wanted to make a song that would get people in Berkeley excited. My hypothesis was that machine learning had just recently become good enough to use for compelling art that people could connect with on a fundamental level. I hope to demonstrate empirically that collaboration with generative models is a valid new artistic pursuit. I wanted to try out new cutting-edge AI models in the domains of language, vision and sound to generate lyrics, melodies, harmonies, song structures and visual imagery. The song concept that I ultimately landed upon is a fun, upbeat hyper-pop song about the kinds of unique personalities that UC Berkeley attracts and nurtures.

Technologies

I started with Bing Chat, which is a powerful version of OpenAI's GPT language model. I invited it to be my songwriting collaborator and it was eager to help. We decided that Bing Chat would provide ideas and suggestions, while I would provide feedback and executive decisions. I was ultimately in charge of producing the music, but that was also collaborative with technology. We took turn guiding each other in the creative process. I was successful with several of the tools that I attempted, but also went down several computing rabbit holes that did not bear fruit. At first I wanted to use MusicLM to try prompt-driven music generation, but it turned out to not be ready for the public yet. So I put Bing Chat on the Creative setting and started treating it like it was a trusted musical partner. It suggested song concepts, genres, chord progressions, a tempo range, song structures. I would curate what I liked and steer it away from what I didn't like and we collaborated in a back-and-forth way. Like working with a human bandmate, except that I had the final word in each decision! The language model was extremely proficient in certain areas and questionable in others. Once we honed in on lyrics and chord progressions, I wanted to start the actual music with drums. My process was to find a song with a good beat in the tempo range that Bing Chat suggested. Then, I would use a website called Gaudio Studio to extract the drum audio from the rest of the song. Then, I would use a Google Magenta model called Onsets and Frames to extract the MIDI performance from the drum stem. Then I would use my custom-built Ableton Live music composition system to select a drum sound to play the extracted rhythms and tweak the sound. I found a bunch of songs I liked the drums in. The Cure, Rolling Stones, Jimi Hendrix to name a few. I ended up selecting a Nirvana song at 150 bpm, called Lounge Act. The Gaudio stem extraction went well. The Onsets and Frames attempt was fruitless. I tried to run a Colab notebook script to convert the drum mp3 into MIDI, but I got stuck in dependency error purgatory. Bing Chat tried it's best to help me succeed but I failed. Then I tried Spotify's Basic Pitch audio-MIDI model, but apparently it only works with melodic instruments and fails with drums. So I went back to my old Ableton audio to MIDI trick which is not perfect but was workable after much editing of the resulting MIDI drum track. I used the Lounge Act drum stem audio that Gaudio produced to set the tempo of the song. I placed warp markers on prominent downbeats so that the grid would get slower and faster with Dave Grohl's original performance. The goal was to preserve some variation in the performance and not be so robotic with the metronome. For the bass line, I basically just played the notes that Bing Chat suggested for chord progressions in each section, after I rearranged them into an order that I liked with the lyrics. For the most part, I doubled this melody with the voice. Then, for the chorus section I used a different model from Google Magenta called Coconet to generate a four-part harmony. I used a web-based interface called CouCou to manually draw in the chorus melody and generate a four-part harmony. It was very limited in it's use, but I eventually succeeded in getting a variation that I liked so I downloaded the four parts (bass, tenor, alto, soprano) and played them in my Ableton set. Then I sang each parts with the lyrics and switched the chorus bass line with the baritone part that Coconet created. Additionally, I experimented using a model called RAVE, which stands for Realtime Audio Variational Autoencoder. I accessed this via a MaxMSP object called "NN~" in a Max For Live patch that I whipped up. Rave allowed me to perform style transfer on any sound in Ableton. I tried a few sound models but they weren't very musical. The one I liked was based on a corpus of random people talking. So I ran inference on some sounds from the song and sprinkled the experiment throughout to provide some alien texture.

Sources

Musically, I started with the idea of hyper-pop for a genre because it's contemporary and fun. And because it doesn't shy away from weird digital

Song 20	<u>She could be everything</u> by Pascale&Lingye		<u>listen to song</u>
Musical Concept	<p>The aim behind our vision is to explore the concept of time in songwriting and challenging harmonic and rhythmic conventions, then create unique and innovative music that pushes the boundaries of what is traditionally expected in popular music. The use of technology in the design approach to slice and pitch shift a melodic phrase can be an effective way to deconstruct and reconstruct a song in a new and creative way. This approach helps us create new harmonies and rhythms that were not originally present in the original melodic phrase. Additionally, this approach allows for experimentation with different combinations of sounds and textures that may not have been possible with traditional songwriting techniques.</p>		
Technologies	<p>MAXMSP, Logic Pro X, ChatGPT</p>		
Sources	<p>self-generated samples in logic pro x & slices through MAXMSP</p>		
Experiences, Challenges, Takeaways, Surprises	<p>The concept of writing songs with machines is a fascinating and somewhat controversial topic. On one hand, technology has opened up a whole new world of possibilities for music production and songwriting. With the help of machines, we can create sounds and rhythms that were previously impossible, and we can automate certain tasks to free up time and creative energy.</p> <p>At the same time, some people argue that the use of machines in songwriting can take away from the authenticity and emotion of the music. When we built our first MAX patch and simply slices up our sample, we got a sense that music created by machines lacks the soul and heart that comes from human expression. Yet we later find out that it is the human factor of songwriting that adds souls to the song itself, and machines are at its max performance when used as a generator for infinite ideas. Ultimately, it is up to the artist to determine how they want to use this tool and what they want their music to convey.</p> <p>What we find most intriguing about writing songs with machines is the ability to collaborate with technology in a way that enhances human creativity. By using machines to automate certain tasks or generate new ideas, artists can focus on the more expressive and emotional aspects of music creation. The possibilities are endless.</p>		
Team Background	<p>music buddies and future band mates!</p>		
Additional Links	<p><u>Twitter</u></p>		