PROJECT PITCH

Over the past year, generative AI has taken the world by storm. First, the world was shocked by the outstanding performance of GTP-3. Then, as people learned more, they realized AI could do more than generate new text - it could also create life-like images and even generate videos.

One area that I would argue is still being overlooked, however, is music generation. The music that is being synthesized sounds less like something novel and exciting and more like an unsuccessful attempt of mimicking a human songwriter. I would argue that this is because the approach to music is completely wrong. The frameworks that work for generating text and images don't work for music. We need to approach things differently.

Through my proposal, I explain a new strategy for generating AI music and why it could be surprisingly beneficial to society. I propose leveraging the existing technologies in a way that, to my knowledge, has never been done before. Here is how we get there:

1. Focus on music that AI is uniquely well positioned to generate. It is obvious to me that the correct genre for AI is ambient music. This is because ambient music doesn't need to follow the traditional rules of composition to sound good. It is more about experimentation and slight changes until you have a satisfying result.
2. The steps to train a model to generate ambient music would be simple to create because the process of a human generating ambient music is similar to how many AI models are trained.
    a. First, you would train a model to generate some music similar to how we did in lab 1. Starting with this kind of base model that has some understanding of music composition would be a good place to start instead of trying to build up from nothing.
    b. Next, you would use reinforcement learning with human feedback, similar to how OpenAI trained GTP-4 after training the base model. The human feedback would optimize for two categories: 1). Music that sounds ambient and 2). Music that feels good. Because it is extremely hard to describe what makes music good or bad, it feels wrong to train on just data to learn patterns. For a model to generate truly good music, the only reliable feedback would be directly from a human. This is especially important with ambient music because it is impossible to describe what elements make a given ambient song good. You just have to listen to it, and if it makes you feel good, it is good.

By training a model to generate ambient music using reinforcement learning with human feedback, I would argue that it is possible that the model would be able to outperform human ambient music and that the resulting content would be very beneficial to society.

Ambient music is already recognized for being relaxing. Imagine a much better version of it. The result could not only be relaxing; it could be therapeutic. It could potentially help people meditate, or alleviate anxiety. AI could learn to tap into our brains using music in ways that are completely new and help us navigate the world in a much more calm way.

This proposal is ambitious, but by no means out of reach. I believe that the tools already exist for the kind of model I am talking about. The reason it doesn’t already exist is probably just because nobody has thought to build it.