

## THE MUSIC WHISPERS, SHAZAM TELLS

The place music holds in our lives is often indescribable with words. Sometimes a song, completely unexpectedly, transports us to a past moment, and sometimes a few notes make our hearts flutter. For me, music is the most natural accompaniment to daily life. In fact, I believe music holds a very important place in my life, and I cannot imagine a world or a life without it. For this reason, I love listening to music and discovering new music. Sometimes, when I hear new and pleasing music in a place I visit, a TV series, a movie, an environment, or on the road, I become curious about the artist and the song title. This piques my curiosity about whether there are other similar songs. Previously, I would try to find out the name by asking and would write it down on a piece of paper so I wouldn't forget. If I lost the paper, I would be upset because I couldn't find it later when I wanted to listen to it, or I would try to find it by searching with what I could remember.

One day, I went out with my friends to a cafe. A beautiful song started playing. Since I didn't know the song and wanted to listen to it later, I began noting down the lyrics on a piece of paper. I saw one of my friends take out their phone and place it on the table, and I was surprised when they said they found the song a few seconds later. When I asked how they did it and how it was possible in a few seconds, they said there was an application called Shazam. They briefly explained what Shazam is, that it finds the song by listening to it, and that the found song is saved to the application's own library. They could listen to the song saved in their library whenever they wanted. I was both surprised and happy, thinking it would be useful for me, and immediately asked them to download it for me. I have been using it happily for a long time since the day I downloaded it, and it is very useful.

Thinking about how Shazam works or what its basic working principle is, I did some research. Shazam is an application that can find out which song is playing in the environment by listening to it for a few seconds. To do this, it extracts a digital "fingerprint" of the sound and compares this print with the recordings in its massive database. This system is one of the most impressive examples of acoustic recognition technology. While researching when Shazam was made, I learned that it was founded in 2002, and in those days, users would call a specific number, let the song play, and that's how it was found. That service was provided even back then, and one had to call a number—fortunately, that's not the case today. Another surprising event for me was when a giant like Apple bought it in 2018 and made it work better by integrating it into the iOS ecosystem. Thanks to this integration, listening is made possible through Apple Music, Spotify, YouTube Music, and YouTube. The inclusion of lyrics, music video support, and small pieces of information about the artist is also a nice detail, I think. In light of these, Shazam is more than just an application that helps me find music; it's a door to my personal musical journey.

Of course, using this application has had its small issues. Sometimes I struggled and still struggle to find songs by independent, unique artists or due to excessive environmental noise. Apart from these, the application works with great success, and I am satisfied while using it. Another great feature of the application is that you don't need an internet connection to use it. Even without an internet connection, it listens to and detects the song being played, and when you have an internet connection, it suggests the song you were looking for by

saying, "You searched for this." This feature is especially nice because even if you don't have internet, it saves it to its library for later and suggests it to you.

The technology behind Shazam can actually be considered a pioneer of artificial intelligence and machine learning. Every time the application makes a recognition, it strengthens its database. This not only allows it to provide better service but also enables the algorithms to analyze sound frequencies, patterns, and tempo variances, yielding more accurate results. In short, it is constantly learning and providing better service. It is predicted that in the future, such technologies will not be limited to song recognition. AI-powered music recognition systems will analyze users' moods, ambient sounds, and personal tastes to offer listening recommendations. Applications like Shazam might, perhaps in the near future, become an app that "recognizes emotions, not just songs." This might sound scary, but perhaps it will be beneficial for people. It could make the atmosphere more enjoyable by playing suitable songs in a social setting or suggest songs based on one's current emotion when they are alone. Maybe it will help couples have more romantic moments. Perhaps new songs can be discovered thanks to the suggestions made.

Furthermore, when combined with augmented reality (AR) and voice-based interaction technology, music recognition could become more visual and interactive. For example, by pointing the phone's camera at the stage during a concert, the previous performances or the announced concert schedule of the person on stage could be displayed. Plans for the future can be made using the announced concert schedule. With the evolution of Shazam, it might become a tool that offers new discoveries for musicians and producers by having the ability to recognize only the vocals or only the guitar riffs of a song. How would it be if Shazam could help you find a song just by humming it and present these with better results in the future? Wouldn't finding a song stuck in your head that you might not know make you happy?

Shazam is now a technology that is difficult for me to give up. The biggest reason for this is that it easily finds the songs I am curious about and saves them to my library. Shazam means new music and new artists I have searched for and found, both while living in Turkey and after moving to Bosnia and Herzegovina. All of this is possible just by pressing a small blue button on my phone or tablet. This application unites two worlds: a discovery tool for individual users and the unseen analysis power of the music industry. Shazam is my silent friend that helps me discover new music and solves the mystery of music. This friend tells me: Every melody has a story, and Shazam whispers the name of that story.