



University of Chittagong

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Designing Song Using Artificial Intelligence

Artificial Intelligence

CSE 713

Submitted To

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1 Task 1 – Lyrics

The song was written in Bangla. It celebrates the memories of the 2024 trip to Saint Martin with my four best friends along with my classmates and the natural beauty I experienced.

2 Task 2 – Process Documentation

Below is a concise (approximately 1–2 pages) write-up describing the steps followed, the AI technologies used, and how AI was applied during the creative process.

2.1 The Steps Followed

1. **Idea Theme (Inspiration):** The idea started with a reminiscence of a class trip to Saint Martin in 2024 that I took with my classmates and four dearest friends. The three main themes that were picked were nostalgia, friendship, and the beauty of nature (sea, sand, and sky).
2. **Lyric Drafting:** I wrote a rough Bengali lyric (a tiny sketch) that focused on chorus lines and a few verses to express the primary feelings: happiness and everlasting memory.
3. **Melody Generation (using AI):** I experimented with text-to-music prompts and quick seed melodies using Suno (<https://suno.com>) to create background tracks and rhythmic ideas that suited the mood (soft, peaceful, slightly upbeat for chorus).
4. **Refining Lyrics to Fit Melody:** I changed the word choices and syllable counts after listening to created tunes to make the Bengali lyrics fit the phrasing pace and smooth melodic phrasing.
5. **Arrangement Structure:** I organized the song structure: Intro, Verse, Pre-chorus, Chorus, Bridge, Chorus (repeat), Outro. AI-generated suggestions from Suno helped determine a suitable intro length and where to place instrumental breaks.
6. **Harmonization and Instrumentation:** Suno produced several instrumental layers (pads, acoustic guitar, soft percussion). I selected and combined layers that supported the vocal melody without overpowering the lyrics.
7. **Final Lyric Polishing:** After matching lyric phrasing to the final arrangement, I made small edits to enhance rhyme, imagery, and flow. The final Bengali lyrics presented above are the result.

2.2 AI Technologies Used

- **Suno (suno.com)** – primary tool for text-to-music generation, melody and accompaniment ideas, and arrangement suggestions.

- **ChatGPT (openai.com)** – used to generate and refine Bengali lyrics, ensuring thematic consistency and poetic flow.

2.3 Application of AI

How AI (Suno) was applied at each stage:

- **Generating Melodies:** Suno produced a number of short melody samples in response to mood prompts (such as "gentle seaside, nostalgic, 4 friends, warm acoustic"). The rise and fall of the chorus and verses were determined by the melodic contours these sketches offered.
- **Creating Instrumental Backing:** Suno created a variety of soundtrack choices. I chose a backdrop track that enhances Bengali vocal phrase by combining the best components.
- **Lyric-Melody Matching:** While Suno focused mainly on music, I used the generated melodies as anchors and manually adjusted the Bengali lyrics so syllables and stresses matched the musical beats. The AI saved time by providing ready-made melodic shapes to fit lyrics into.

2.4 Reflections and Limitations

Artificial intelligence (AI) systems such as Suno speed up creative experimentation by generating a large number of musical ideas quickly, helping with arrangement decisions, and reducing the period of time spent searching for suitable chordal or rhythmic textures. However, some limitations were:

- In order to match Bengali pronunciation and natural stress patterns, generated melodies occasionally required manual adjustments.
- Bengali lyrics' emotional depths and cultural idioms require human judgment in order to be authentic and expressive.
- Certain advanced features (e.g., extended track length, higher-quality exports, multi-track editing) are only available in the paid version, which limited some creative possibilities in the free version.

Acknowledgement: The musical generation, arrangement ideas, and mixes referenced in this document were produced with assistance from Suno (<https://suno.com>).