# **Roshan Mohapatra**

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## **Professional Summary**

Highly motivated and creative B.Tech (CSE - AIML) student with a passion for music composition and performance. Proven ability to develop technical solutions while maintaining artistic vision. Proficient in Python, FastAPI, and data science tools, with a strong foundation in machine learning and backend development. Experienced in building scalable applications and deploying real-world projects. Eager to contribute to innovative music tech teams and grow as a music technologist in a challenging industry role.

#### **Skills**

#### **Music & Audio Production**

- Music Composition
- Music Theory
- Audio Editing
- MIDI Sequencing
- Sound Design
- Music Notation (Finale, MuseScore)

#### **Technical Skills**

- Python (PyGame, MIDIUtil, NumPy)
- FastAPI
- RESTful API Design
- Git, GitHub
- Postman
- Jupyter Notebook

#### **Tools & Platforms**

- Digital Audio Workstations (DAWs): Ableton Live, Logic Pro
- Music Production Software: FL Studio, Cubase
- Collaboration Tools: Spotify, SoundCloud, BandLab

# **Projects**

#### **Music Theory Quiz App**

A web application designed to test and improve users' knowledge of music theory.

- Built with FastAPI backend and React.js frontend.
- Implemented REST APIs for question retrieval, user authentication, and score tracking.
- Used Supabase for database integration and user management.

#### **Backing Track Generator**

A tool that generates customizable backing tracks for musicians.

- Developed using Python and FastAPI.
- Integrated with music libraries to generate harmonies and rhythms based on user input.
- Designed with a user-friendly interface for easy access and customization.

#### **Interactive Music Visualizer**

A real-time music visualizer that syncs visuals with audio input.

- Built using Python and PyGame.
- Implemented audio processing libraries to analyze music and generate dynamic visuals.
- Designed for live performances and music events.

# **Experience**

#### **Music Production Intern**

BADAL Institute of Life Sciences (ILS) | Bhubaneswar, Odisha

Dec 2024 - Feb 2025

- Assisted in developing music production tools using Python and FastAPI.
- Collaborated with musicians to create and edit backing tracks.
- Integrated APIs for real-time music visualization and audio processing.

### **Backend Developer Intern**

NextTech | Bhubaneswar, Odisha

Feb 2025 - Present

- Developed REST APIs for a music collaboration platform using FastAPI.
- Implemented user authentication and role-based access control.
- Collaborated with the design team to ensure seamless user experience.

### **Education**

#### **GITA Autonomous College**

B.Tech in Computer Science and Engineering (Artificial Intelligence and Machine Learning) 2022 – Present

- Minor in Music Theory
- Secured an average of 85% in 3 years

#### **Kendrapara Public School**

12th

2020 - 2022

- Secured 85%

### **Kendrapara Public School**

10th

2020

- Secured 83%

### **Certifications**

- Music Theory Fundamentals Coursera
- Python for Music Production Udemy
- REST API Development FreeCodeCamp
- Al for Music Production Coursera

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