ZONGYOU (FRED) XIANG

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RESEARCH INTERESTS

Music information retrieval; detecting AI-generated music; composer attribution and originality

EDUCATION

University of Central Florida, Orlando, FL — Jan 2026 – May 2027 (expected)
M.S. in Data Analytics · GPA: 3.85/4.00

- **Coursework:** Machine Learning, Data Mining Methodology I and II, Interactive Data Visualization, Parallel and Distributed Database Systems, Network Science (in progress), Parallel and Cloud Computation (in progress)

New York University, Steinhardt School, New York, NY — Aug 2022 – Sep 2024
M.A. in Music Business

- **Coursework:** Data Analysis in the Music Industry, Technology Innovation Strategy, Emerging Models and Markets for Music, Law in the Music Industry

Bard College, Annandale-on-Hudson, NY — Aug 2019 – May 2022
B.A. in Electronic Music

- **Senior Project:** portfolio of electronic compositions and recordings (MIDI composition, sound design, audio engineering)
- **Coursework:** Algorithmic Composition and Improvisation, Music Software, Music Recording and Production

Additional Coursework — 2022 – 2026

- UC Berkeley Extension: Programming Python, Introduction to Databases; UCLA Extension: Introduction to Computer Science II; UC San Diego Extension: Introduction to Statistics, Introduction to SPSS

RESEARCH PROJECTS

AI Music Detection on Unseen Generators — independent project — 2026

- Built a pipeline that turns real and AI-generated music clips into spectrograms, and trained logistic regression and CNN detectors to distinguish them (FakeMusicCaps: 2,856 real clips, 27,605 clips from five text-to-music models).
- Tested the detectors on generators left out of training. The CNN reached 0.975 balanced accuracy on known generators but caught only about half of the music from an unseen one.
- Removed each clip's spectral envelope so the detectors could not rely on it; this improved detection on some generators but hurt it on others.

Testing a Beethoven Classifier on Recombined Imitations — independent project — 2026

- Reproduced the "is this Beethoven?" GRU classifier from Dr. Kien A. Hua's group (Galajda & Hua, MIPR 2024) on the Maestro dataset (AUC 0.96, stable under stricter data splits).
- Built fake "Beethoven" segments by splicing real Beethoven bars from different works; the classifier accepted 83–92% of them as Beethoven.
- Built a second detector that looks at how bars are joined (AUC 0.94–0.96), but found that when trained only on random splicing, it did much worse on splices chosen to sound smooth (AUC 0.73).

ACADEMIC PROJECTS

Hitting the Vibe — Party Playlist Web App — 2024 – 2026

- Built a web app that automatically picks songs from guests' Spotify playlists and creates one shared party playlist of danceable, energetic tracks that fit together.
- Designed it to let a party play music that everyone likes and that fits the mood. The app began as a team project idea in an NYU music industry data analysis course, which I later turned into a working app.

Brain Tumor MRI Classification — Data Mining Methodology II, UCF (team of two) Summer 2026

- Reduced the pixel features of 3,264 MRI scans (four classes) with F-test selection and PCA, then compared nine models, from regularized regression and tree ensembles to a CNN.
- The best model reached 75.9% accuracy, but per-class recall showed that it found only 23% of glioma cases.

Master's Colloquy — New York University Summer 2024

- Analyzed China's digital music market (piracy and copyright, licensing, platform regulation, Tencent Music, NetEase Cloud Music, Douyin) and how Western artists can enter it.

SKILLS

Programming: Python (pandas, scikit-learn, PyTorch), R, SQL, SPSS, Git

Music: Piano (ABRSM Grade 8), IB Higher Level Music; Max/MSP, Logic Pro X, Pro Tools, MuseScore

Languages: Mandarin Chinese (native), English (fluent)

MUSIC INDUSTRY EXPERIENCE

A Round Entertainment, New York, NY — Marketing and Publicity Intern Aug – Dec 2023, May – Aug 2024

- Grew a new account to 50,000 followers across Instagram, YouTube, TikTok, and RedNote in three months; wrote market and competitor reports for two new apps.

RedNote (Xiaohongshu), Shanghai, China — Music Division Operations Intern May – Aug 2023

- Tracked trending music and traffic data to find emerging creators; worked with labels and artists on promotion and ran music events and festivals.
- Built a SQL database of performers, crew, and guests for a sponsored concert.

Taihe Music Group, Beijing, China — Artist Management and Music Publishing Intern Jun – Aug 2021

- Released albums for ARVII, Ge Zhaoen, and Jiang Fan; revised performance contracts; planned a China promotion strategy for [PIAS] Recordings.

Beijing 13 Months Music, Beijing, China — Studio Assistant May – Jul 2018

- Assisted with recording and mastering of Daniel Ho's album Embroidering Melodies (with the Suzhou Masters), and interpreted on his field-recording trip in Suzhou.