CIS4930/5930 Music Informatics & Computing

CRN 12772 / 12773, Mon/Wed 4:30-5:45pm, 3 credit hours

Instructor: Dr. Ching-Hua Chuan, c.chuan@unf.edu
Prerequisite: Data structures or Music Theory

This course explores the latest advances in music informatics and computing. Music information research has become an indispensable field across various disciplines, and its development has re-defined our everyday music experiences. The class covers computational techniques for analyzing musical structures such as melody, chord, tonality, beat, tempo and rhythm from symbolic music representation as well as from audio signals. Different approaches to applications such as automatic playlist generation, music recommendation, automatic accompaniment systems, and composer style modeling are compared and discussed. Students need to design and conduct a final project using the techniques and/or software tools introduced in the class. In addition to the final project, the class includes reading of contemporary literature on the topic and requires student to make presentations and to complete hands-on assignments.

Topics include:
- How technology and computing tools change our everyday music experiences
- Digital Representation of Music
- Music Structure Analysis
- Extracting Information from Audio
- Timing Information
- Individual Style and (Style-Specific) Music Generation
- Music Recommendation