

Martin L. McCrory

Graduate Student, School of Informatics
Indiana University - Bloomington

Curriculum Vitae

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Graduate Education:

Indiana University - Bloomington

Degree: Master of Science, Music Informatics

Anticipated Graduation: May 2009

Undergraduate Education:

University of Illinois – Urbana/Champaign

Major: Music Composition, Minor: Computer Science

Graduated: May 2007

Research Interests:

- Music Classification Systems
- Music Recommendation
- Music Visualization
- Music Information Retrieval algorithm development
- User Interface Design (sound and music manipulation)
- Computer-assisted Composition

Current Research and Projects:

- ***SortMyTunes*** ([*proposal*](#)) ([*powerpoint of concept*](#)) – a “hybrid” music classification system based on using user-created clusters of music to guide the computer in the classification process. The concept is currently in the prototype phase.
- ***CHI 2008*** ([*powerpoint of concept*](#)) – submission to the Computer Human Interaction 2008 design contest. The task is to deliver a solution to address the issue of homelessness in the United States. We are currently conducting final usability tests before a January 2008 submission.

Completed Research and Projects:

- ***Music Information Retrieval*** (<http://www.music-ir.org/evaluation/MIREX>) - Our team researched methods of music information cataloguing, retrieval and mining that will lead to more advanced methods of end-user search processes and library databasing systems (June 2005-August 2007).
- I gave a composition recital of some of my chamber pieces on April 14, 2007. The program will most likely consist of four to five pieces, selected from my above works as well as any new works I write in the future.
- I received a commission from Steve Downing (ssdowning@gmail.com) for a series of compositions for a web-based application for the creation of flash cartoons. The product is expected to be available for consumption in 2007. (2006)

Teaching Experience:

- INFO 310: Multimedia Arts and Technology (Fall 2007) – Associate Instructor
 - Topics discussed include: viral marketing, e-ethics, social networking, media consumption, adaptation of new business models, using new media to lead to new innovation, and other points relating to the theory and practice of new media on cyberculture

Relevant Graduate Coursework Completed:

- INFO 548: Introduction to Music Informatics (Fall 2007)
 - Explored various topics relevant to Music Informatics, such as Music Information Retrieval, music recommender systems, music visualization, IP rights, etc.
- INFO 541: Human Computer Interaction Design (Fall 2007)
 - Developed skills with Human Computer Interaction Design, specifically with regard to user interfaces and interactive systems
 - Facilitated a research team in pursuit of a submission to the Computer Human Interaction (CHI) design contest 2007
- CSCI 592: Software Systems (Fall 2007)
 - Gained additional experience programming in Java
 - Increased OOP skills, and reinforced knowledge of programming systems, debuggers and IDEs

Relevant Undergraduate Coursework Completed:

- MUS 400: Counterpoint and Fugue (Summer 2006)
 - Gained a knowledge of different contrapuntal compositional techniques
- MUS 402: Musical Acoustics (Fall 2005)
 - Studied the physics of sound, the properties of performance spaces, different waveforms, etc
- MUS 404: Instrumentation/Orchestration (Fall 2005)
 - Learned techniques for scoring for an ensemble of varied instrumentation
- MUS 404: Music Programming in Max/MSP (Fall 2006)
 - Developed skills in Max/MSP, an object-oriented GUI for programming musical tasks
 - Applied this knowledge to contemporary compositions, and to recital performances
- MUS 404: Computing Arts Seminar (Fall 2006)
 - Collaborated on a large-scale performance art project combining aspects of musical arts and computing sciences, culminating in a display in local art establishments
- MUS 407: Electronic Music Techniques (Fall 2006)
 - Learned different processes for creating and editing electronic and electroacoustic music, as well as the fundamentals of electronic manipulation of sound
- MUS 408: Analysis of Twentieth Century Musical Form (Spring 2006)
 - Performed in-depth formal analysis on music from the 20th Century contemporary repertoire
- MUS 415: History of Twentieth Century Music (Spring 2006)
 - Studied music history from 1900-present, including American jazz/blues, European styles from before WWII, contemporary film music, minimalism, and other topics
- CS 125: Introduction to Computer Science (Fall 2005)
 - Learned basic concepts of CS and object oriented programming, such as the idea of methods/functions, loops, encapsulation, algorithms and other topics
 - Gained experience programming in Java 1.5

- CS 173: Discrete Mathematical Structures (Spring 2006)
 - Studied applications of discrete math as it applies to Computer Science (i.e. Logic functions, boolean logic, induction, probability, and other topics)
- CS 225: Introduction to Data Structures (Spring 2006)
 - Wrote programs utilizing more advanced data structures, such as linked lists, trees, tries, graphs, queues, hashing and other topics
 - Gained experience programming in C++
- CS 231: Computer Architecture I (Summer 2006)
 - Learned about low-level computer processes, including logic gates, building memory, hardware design, and other topics
- CS412: Introduction to Data Mining (Spring 2006)
 - Learned basic principles behind data mining, such as data cleaning, data cubes, pattern classification, cluster analysis and other topics

Compositional Work:

- *"Breathe"* for solo mezzo-soprano and live electronics
 - Written Spring 2007
 - Performed on April 14, 2007 at Senior Composition Recital (see Completed Research and Projects)
- *"Fantasy on Bolero"* for solo snare drum and live electronics
 - Written Spring 2007
 - Performed on April 14, 2007
- *"Rennt"* for marimba/vibraphone and piano
 - Written Fall 2006
 - Performed on April 14, 2007
- *"Brooklyn Strike"* for soprano saxophone, piano and drumset
 - Written Spring 2006
- *"Onundru"* for solo bassoon and piano accompaniment
 - Written Fall 2005
 - Performed on April 14, 2007
- *"Squeeze Play"* for four percussionists
 - Written Summer 2004
 - Performed November 17, 2004, by the University of Illinois Percussion Ensemble at Krannert Center for the Performing Arts
- *"Thoughts of Home"* for solo marimba
 - Written August 2004-May 2005
 - Performed May-June, 2005 in London and Manchester, UK
 - Performed at community functions from July 2006 - current
 - Performed on April 14, 2007
- *"Incomplete"* for Concert Choir
 - Written March 2005-July 2005

Academic References:

Prof. Donald Byrd 901 E. 10th St, Bloomington, IN 47408 donbyrd@indiana.edu

Prof. Philipp Blume 1114 w Nevada, Urbana IL 61801 pgblu@uiuc.edu

Prof. Erik Lund 1114 w Nevada, Urbana IL 61801 217.333.7061 eriklund@uiuc.edu

Prof. Stephen Taylor 1114 w Nevada, Urbana IL 61801 217.333.3712 staylor7@uiuc.edu