Launching CROMA: Computational Research On Music & Audio

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ABSTRACT

This lightning talk describes the current effort to create a research group at [Anonymized] University to conduct Computational Research On Music & Audio (CROMA). A CROMA Team of Interdisciplinary Collaborators (CROMA-TIC) will be assembled to participate in different aspects and applications of computational audio signal processing, drawing from disciplines such as computer science, mathematics, music, psychology, and nursing. This effort is modeled upon the Centre for Interdisciplinary Research in Music Media and Technology housed at [Anonymized] University, but it will be distinct in its focus on undergraduate research. Further, this research group will be unique among Historically Black Colleges and Universities (HBCUs). A goal of assembling CROMA-TIC and establishing the CROMA-Lab is to inspire participants, especially including minority students, to seek graduate degrees while enriching their undergraduate learning experiences. The initial research aims will focus on sound event separation within musical audio, with the idea that the research conducted by CROMA-TIC will be applicable to a wide array of applications (such as improving the performance of hearing aids in noisy environments or automatic transcription of music recordings, among innumerable possibilities). This effort is just underway; interested faculty and students are invited to attend the presentation and consider participation in CROMA so that it may develop into a truly interdisciplinary, multi-institutional endeavor. This was borrowed from an accepted lightning talk from SIGCSE 2015. (Bibstrip/copyright text)[1] while applying the required template.

Description

Many of our students take music courses in addition to their computer science and mathematics coursework. One of them asked us if she could do an independent research project on digital music formats, and the idea was born to involve more students and faculty at our small institution in research on music and audio. To gain critical mass, we needed to involve other departments on campus and colleagues at other universities. We are truly excited about this project because of its great potential to improve recruitment and retention, to start a pipeline toward graduate school for our students, and to jumpstart research endeavors for our faculty. In our allotted five minutes, we plan to discuss our inspiration, our plan for creating CROMA-TIC and CROMA, including our prospective timeline, and our surveys for student and faculty participants.

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